S4190-2-u

1988
MINNESOTA HEALTH STATISTICS

MINNESOTA DEPARTMENT OF HEALTH

MINNESOTA
HEALTH STATISTICS
1988

Published July, 1990

Minnesota Department of Health
Minnesota Center for Health Statistics
717 Delaware Street S.E.
P.O. Box 9441
Minneapolis, Minnesota 55440

Illustrations by : Deb Bruers

FOREWORD

Minnesota Health Statistics 1988 was prepared by the Minnesota Center for Health Statistics of the Minnesota Department of Health and is the 38th annual summary of vital statistics published by the Department. The document also responds, in part, to the requirements of a contract held with the United States Department of Health and Human Services to establish and implement a cooperative health statistics program for Minnesota.

If you have suggestions concerning the report format, queries concerning the data formulae used in developing the statistics, or if you have requests for additional statistics or other related publications, please contact:

Minnesota Department of Health
Minnesota Center for Health Statistics
717 S.E. Delaware Street
P.O. Box 9441
Minneapolis, MN 55440

Telephone Number: (612) 623-5353

TABLE OF CONTENTS

Page

Introduction.. 1

- Technical Notes.. 3
- Changes in Summary Format............................ 3
- Sources of Data.. 3
- Data Quality.. 5
- Geographic Allocation.................................. 9
- Definition of Rates...................................... 10

Overview of 1988 Vital Statistics.................................. 11

Live Births.. 23

Reported Induced Abortions.. 43

Fertility.. 59

Infant Mortality and Fetal Deaths.................................. 63

General Mortality.. 67

Marriage... 97

Divorce.. 103

Occupational Illness and Injury.................................... 117

Poison... 125

Population... 135

Appendix... 151

- A. Definitions... 153
- B. Data Collection Instruments............................... 167
- C. Map of Health Districts and Offices....................... 177

LIST OF TABLES

Table		Page
1	Percent Changes Between 1987 and 1988 Selected Minnesota Health Statistics	13
2	Resident Live Births, Crude Birth Rates, and Fertility Rates, Minnesota and United States, 1940, 1945, 1950, 1055, 1960, 1965-1988	14
3	Numbers and Rates of Resident Live Births, Deaths, and Maternal Deaths, Minnesota and United States, 1940, 1945, 1950, 1955, 1960, 1965-1988	15
4	Numbers and Rates of Infant Deaths, Neonatal Deaths, and Fetal Deaths, Minnesota and United States, 1940, 1945, 1950, 1955, 1960, 1965-1988	16
5	Marriages and Divorces and Annulments, Numbers and Rates, Minnesota and United States, 1940, 1945, 1950, 1955, 1960, 1965-1988	17
6	Births, Deaths, Infant Deaths, Fetal Deaths, Marriages, Divorces and Annulments by Month, Minnesota Occurrences, 1988	18
7	Live Births, Fetal Deaths, Deaths, Infant Deaths, and Neonatal Deaths by Urban Area of Residence, Minnesota, 1988	19
8	Live Births by County of Occurrence Distributed According to Residence, Resident Live Births Distributed According to Place of Birth, Minnesota, 1988	26
9	Selected Resident Natality Statistics by County and Cities Over 90,000, Minnesota, 1988	28
10	Live Birth Weight by Live Birth Order and Sex, Minnesota Residents, 1988	40
11	Live Births by Age of Mother and Live Birth Order, Minnesota Residents, 1988	41
12	Prenatal Care and Race by Age of Mother and by Legitimacy Status, Minnesota Residents, 1988	42
13	Total Reported and Resident Induced Abortions, Minnesota, 1973-1988	45

LIST OF TABLES (CONT.)

Table		Page
14	Reported Induced Abortions, Selected Surveillance Results and Comparisons, Minnesota, 1982-1988	46
15	Reported Induced Abortions by Race/Ethnic Group and Residence, Minnesota, 1988	47
16	Reported Resident Induced Abortions by Race and Age Group, Minnesota, 1988	48
17	Reported Resident Induced Abortions by Age Group and Marital Status, Minnesota, 1988	49
18	Reported Induced Abortions by Gestation and Residence, Minnesota, 1988	50
19	Reported Resident Induced Abortions by Age Group by Weeks of Gestation, Minnesota 1988	51
20	Patients Reporting Prior Abortions by Age Group and Residence, Minnesota, 1988	52
21	Reported Induced Abortions by Method by Complications and Residence, Minnesota, 1988	53
22	Marital Status by Reported Contraceptive Use, Minnesota Residents, 1988	54
23	Reported Induced Abortions by Age Group by Type of Contraception at Conception, Minnesota Residents, 1988	55
24	Reported Induced Abortions by Age Group by Contraceptive Use, Minnesota Residents, 1988	56
25	Reported Induced Abortions Occurring in Minnesota to Non-Minnesota Residents by State or Country of Residence, 1988	57
26	Total Reported Pregnancies by Outcome Type and Rate, Minnesota Residents, 1975-1988	61
27	Pregnancy Outcomes and Pregnancy Rates by Age of Woman, Minnesota Residents, Selected Years, 1980-1988	62
28	Infant, Neonatal and Postneonatal Deaths by Cause, Minnesota Residents, 1988	65

LIST OF TABLES (CONT.)

Table Page

29 Fetal Deaths of 20 Weeks and Over by Cause and Weight of Fetus, Minnesota Residents, 1988.. 66

30 Deaths by County of Occurrence According to Residence: Resident Deaths Distributed According to Place of Death, Minnesota, 1988.. 70

31 Deaths From Selected Causes by Age Group and Sex, Minnesota Residents, 1988.. 72

32 Deaths Due to Selected Causes by Race, Minnesota Residents, 1988.. 79

33 Fifteen Leading Causes of Death, Death Rates Per 100,000 Population and Percent of Total Deaths, Minnesota Residents, 1988.. 80

34 Leading Causes of Death by Selected Age Groups, Minnesota Residents, 1988.. 81

35 Deaths Due to HIV Infection, Minnesota Residents, 1988......... 82

36 Accident Fatalities Occurring in Minnesota by Accident Category and Age Group, 1986-1988............................ 83

37 Deaths Occurring in Minnesota by Cause and Autopsy Status, 1988.. 84

38 Selected Resident Mortality Statistics by County and Cities Over 90,000, Minnesota, 1988.................................. 85

39 Marriages Reported in Minnesota by State of Residence, 1988.... 99

40 Marriages by County of Occurrence, Minnesota, 1988............ 100

41 Marriages Occurring in Minnesota by Race of Bride and Groom, 1988.. 101

42 Marriages Occurring in Minnesota by Age of Bride and Groom, 1988.. 102

43 Dissolutions and Annulments by County of Occurrence and Type of Decree, Minnesota, 1988............................. 107

LIST OF TABLES (CONT.)

Table		Page
44	Dissolutions and Annulments by Age of Wife Versus Age of Husband, Minnesota Occurrence, 1988	109
45	Dissolution and Annulments by Race of Wife Versus Race of Husband, Minnesota Occurrence, 1988	110
46	Dissolutions and Annulments by Educational Attainment of Wife Versus Educational Attainment of Husband, Minnesota Occurrence, 1988	111
47	Number of Children in Family by Custody Award, Minnesota Dissolutions and Annulments, 1988	112
48	Number of Children in Family Versus Total Number of Children Whose Custody Was Awarded to Wife, Husband, Both or Non-Parental Party, Minnesota Dissolutions and Annulments, 1988	113
49	Average Monthly Amount of Child Support Awarded by Number of Children, Minnesota Dissolutions and Annulments, 1988	114
50	Dissolutions and Annulments by Number of This Marriage for Wife Versus Number of This Marriage for Husband, Minnesota Occurrence, 1988	115
51	Dissolutions and Annulments by Duration of Marriage, Minnesota Occurrence, 1988	116
52	Number of Injuries and Illnesses by Major Industrial Category, Minnesota, 1986 and 1988	119
53	Annual Average Employment, Percent of Total Employment and Rate of Occupational Injuries and Illnesses Per 1,000 Workers by Industrial Category, Minnesota, 1986 and 1988	120
54	Number of Injuries and Illnesses by Major Occupational Category, Minnesota, 1986 and 1988	121
55	Number of Occupational Injuries and Illnesses by Type of Accident, Minnesota, 1986 and 1988	122
56	Number of Occupational Injuries and Illnesses by Nature of Injury, Minnesota, 1986 and 1988	123

LIST OF TABLES (CONT.)

Table Page

57 Number of Occupational Injuries and Illnesses by Part of Body Injured, Minnesota, 1986 and 1988.............................. 124

58 Human Exposure Calls by Medical Outcome, Minnesota, 1988....... 128

59 Human Exposure Calls by Cause and Sex, Minnesota, 1988......... 129

60 Human Exposure Calls by Cause and Age, Minnesota, 1988......... 130

61 Human Exposure Calls by Age and Sex, Minnesota, 1988........... 131

62 Human Exposure Calls by Generic Substance Category* and Age Group, Minnesota, 1988..................................... 132

63 Population Estimates by Region, County, Cities Over 90,000, and Sex, Minnesota, 1988...................................... 140

LIST OF FIGURES

Figure Page

1 Reported Induced Abortions by County of Residence, 1988........ 58

2 Certificate of Live Birth.................................. 169

3 Certificate of Death....................................... 170

4 Certificate of Fetal Death................................. 171

5 Report of Dissolution or Annulment of Marriage................ 172

6 Report of Induced Abortion................................. 173

7 First Report of Injury..................................... 174

8 AAPCC Cooperative Poison Center Report Form.................. 175

9 Map of Health Districts and Office........................... 179

Introduction

****

TECHNICAL NOTES

****

A. CHANGES IN FORMAT

In 1985 the Minnesota Center for Health Statistics began publishing poison statistics in an annual stand-alone report entitled "Poison Statistics, Minnesota." The *1988 Minnesota Health Statistics* has been expanded to include these poison data in a new section (see pages 127 through 133).

Several graphs and tables previously included in the Reported Induced Abortions section of *Minnesota Health Statistics* have been omitted from the 1988 publication. This was done to eliminate redundancy and to produce a more concise report.

B. SOURCES OF DATA

Birth, death, and fetal death certificates are the source documents for data on vital events of Minnesota residents filed with the Section of Vital Statistics Registration with the Minnesota Department of Health during the 1988 calendar year. A sample copy of each of these types of certificates is included in Appendix B, Figures 2-4, pages 169-171.

Marriage and divorce data are compiled from statistical report forms and summary worksheets submitted to the Section of Vital Statistics Registration by each County Court Administrator. A sample copy of the report form used to file a dissolution or annulment of marriage is also included in Appendix B, Figure 172. Minnesota does not use a standard collection instrument for marriage reporting, and, therefore, no marriage report form is included in Appendix B.

The cut-off date for 1988 vital events data in this report was August 1, 1989. Any data pertaining to a 1988 event for which a certificate was filed after August 1, 1989 are not included in this report. It is possible that future data obtained from the MCHS may differ slightly from that which appears in this report. If this should occur, it is due to an update to the 1988 data year which was made after the August 1 deadline.

Events relating to Minnesota residents which occurred in another state are included in this report.[1] The inclusion of these data is made possible by an agreement for resident exchange of copies of certificates among all registration areas in the United States.

Birth and fetal death certificates are usually completed by hospital personnel present at the delivery. Death certificates are usually completed by hospital personnel, physicians, and funeral directors.

---

[1] No marriage and divorce reports are included in the interstate exchange program for vital events. All marriage and divorce data are Minnesota occurrences.

Reported Induced Abortions

The Minnesota Abortions Surveillance is a statewide reporting system involving provider agencies throughout Minnesota. Follow-up to facilities known to perform abortion procedures has been conducted to enlist all possible sources of abortion data, yielding the present 25 data providers enrolled in the system. A "Report of Induced Abortion" form is completed by provider agency staff for each abortion performed. A sample copy of the report form is included in Appendix B, Figure 6, page 173.

Population

The methods for development of age and gender were revised in 1987 by the Minnesota Center for Health Statistics in order to produce 1985 population estimates. Population estimates for 1988 were produced using the same methodology and are included on pages 140 through 150 of this publication. The following procedures were used:

1) The most current Minnesota age/sex population estimates produced by the U.S. Bureau of the Census were obtained. (These age/sex estimates were made by the Census Bureau to fulfill contractual obligations with the National Cancer Institute.) Census Bureau data for calendar year 1984 remained the latest usable estimates. Those data are aggregated by county, sex and five-year age groups through 84 years of age.

2) The proportion of the total for each age/sex group by sex was computed. Some proportions were fitted to the reported proportions of the 1980 U.S. Census. The proportions most frequently fitted to the 1980 Census involved teenage and young adult cohorts.

3) Those proportions were applied to the *total* county population estimates which are published annually by the Office of the State Demographer within the State Planning Agency. This resulted in revised county five-year age group and gender totals. Any rounding errors were eliminated by adjusting the 85 and over age group. The resulting county totals were thus forced to match the 1988 totals published by the Office of the State Demographer.

4) Adjustments are again made in the age/sex estimates to reconcile the 65 and over population county estimates to equal the county Medicare enrollment. Excess or shortfalls in the 65 and over age cohort are distributed *proportionately* among the under 65 age cohorts. County totals remain identical to the State Demographer's totals.

5) Census data from 1980 were used to compute proportions of age/gender groups for selected cities within their counties of location. Those calculated proportions were applied to the 1988 revised age/gender county estimates to produce 1988 city age/gender preliminary estimates. Further refinements were then made to adjust city totals to equal total city estimates published by the Office of the State Demographer.

Occupation Injuries and Illnesses

The basic source document for the Supplementary Data System (SDS) of occupational injuries and illnesses is the "First Report of Injury" submitted by employers to the Minnesota Department of Labor and Industry, Worker's Compensation Division. A sample copy of the "First Report of Injury" is included in Appendix B, Figure 7, page 174.

The Supplementary Data System covers all employees in the state who fall within the scope of the Worker's Compensation Act. Any work-related illnesses or injuries which cause a loss of three or more days of work are required to be reported (Some exclusions are allowed and include railroads in interstate commerce, most farm operations, casual employment not in the usual course of trade or business, sole proprietors and relations of sole proprietors, and household workers earning less than $1,000 per quarter). A more complete list of exclusions is available from the Minnesota Department of Labor and Industry.

Poison Statistics

The source documents for poison data are report forms completed by Minnesota's Regional Poison Control Centers as poison exposure calls are received. Appendix B, Figure 8 is a sample copy of the current poison report form. The Hennepin County Poison Control Center services all Hennepin County poison exposure calls and the Regional Poison Control Center located in Ramsey County accepts calls from the remainder of Minnesota. After the report forms are completed and processed by the two Minnesota Poison Control Centers computer systems, they are sent to the American Association of Poison Control Center's (AAPCC's) national computer project. The records are edited and finalized at the national level and the Minnesota Department of Health then purchases both a tape and the summary data used to produce the annual statistical tables.

C. DATA QUALITY

Vital Events

The quality of data presented in this report is directly related to the completeness and accuracy of the information contained on the certificates. The MDH maintains two major program operations related to improving the quality of information received on certificates in order to ensure that the information is as complete and accurate as possible.

The query program is a system used to contact hospital personnel, funeral directors, and/or physicians concerning incomplete or conflicting information. The follow-up contact is usually done by telephone and is based on both manual and computer editing procedures.

The field program attempts to improve certificate information by educating participants in the vital registration system, i.e., hospital personnel, funeral directors, physicians, coroners, and medical examiners of the uses and importance of vital statistics data. The field program completes this mission by conducting seminars with various associations and makes site visits when problems with registration relating to a particular event or institution are discovered.

The National Center for Health Statistics (NCHS) monitors Minnesota's coding of statistical data. NCHS has established a two percent upper limit for coding differences involving any one data item, with the exception of cause of death. A five percent limit is established for this item due to the complexity of the coding process.

The Minnesota Department of Health implemented multiple cause coding on death certificates for the final quarter of 1983. All factors contributing to the death which are mentioned on the death certificate are coded using the *Ninth Revision of the International Classification of Diseases* (ICD-9), and underlying cause is determined through a series of special computer programs--the Automated Classification of Medical Entities (ACME).

The ACME system provides not only traditional underlying cause statistics, but also multiple cause data which may be tailored for other in-depth research and analysis. Table 35 utilizes the multiple cause data in identifying cases for which HIV infection was noted as either the underlying cause of death or a contributing factor in the death.

The marriage dissolution report was initiated across all Minnesota counties in 1985 and contains numerous new data items. Item completeness in 1985 was poor as is often the case with new collection activity. Analysis of these data were initiated for the 1986 data year and several new tables were included in *1986 Minnesota Health Statistics*. Item completeness for 1986 remained deficient, with some items forty percent incomplete. This was in part due to a number of counties continuing to send lists (names, ages and dates of decree) rather than individual report forms.

Item completeness for 1987 improved due to on-site visits to several county court administrators' offices by the vital records field personnel. Some missing data on individual records were retrieved by these field representatives from individual records filed at the county level. Due to the tremendous amount of time involved in retrieving these missing data, only selected items were completed. Therefore, certain data items remained thirty to forty percent incomplete, and eleven percent of total dissolutions include only data contained on the aforementioned lists.

More improvements in item completeness were observed in 1988 due to the continuation of the query program by vital records field personnel. However, some data items again reflected thirty to forty percent incompleteness. Of the total records, 9.7% contained only index information.

Again, caution is advised in interpretation of the detailed dissolution tables due to missing data. The narrative preceding the dissolution tables (Tables 43 through 51, pages 107-116) briefly describes the tables and limitations of the data.

Reported Induced Abortions

The quality of data pertaining to induced abortions is dependent on the completeness and accuracy of the report forms submitted by provider facilities. A combination of computer and manual editing enables MCHS personnel to identify errors on records and take necessary corrective steps. Year-end reports are prepared for individual provider facilities to allow them to make comparisons with their own records and to report differences to MCHS. MCHS then analyzes the differences and makes necessary adjustments.

Changes have occurred in administrative record keeping by abortion providers. Revised records management systems have made it very difficult for some providers to match the "Report of Induced Abortion" forms to individual patient records due to lack of unique identifiers. These changes have created a greater margin for error in reporting since facilities are unable to easily locate individual records for correction of questionable reports.

In 1984 a revised reporting form was introduced. Changes were made in three data categories: contraceptive use, abortion method, and complications or failures. The changes were made in order to clarify data, simplify reporting, and reduce errors.

Prior to 1984 the "Report of Induced Abortion" form requested information on clients' reported contraceptive use. The five responses on the form were: "never used," "have used but discontinued use," "was using at conception" (method failure), "use status unknown," and "interrupted use" (intended to differentiate between human error or the choice not to contracept and method failures). Both the "interrupted use" and "method failure" response asked for further information on the type of contraception used as indicated by the client. For that reason, retrieval of data on "method failures" by type of contraception was not possible since "interrupted use" cannot be considered actual method failure.

In order to collect data on method failure only, the contraceptive use category was modified in 1984 to report use "at time of conception" only. Four responses are now offered: "unknown," "never used," "have used but not at conception," and "method failure" requires further action relative to type of contraceptive used. This restructuring of requested information clarifies the contraceptive method data reported.

In 1984, the list of contraceptive methods was also revised: oral contraceptives were categorized into combination pills and mini-pills; the sponge, cervical cap, fertility awareness, and spermicidal jelly/cream (alone) were added; and the "none" category was eliminated.

Also in 1984, response choices in the Abortion Method category were rearranged and the names of the methods updated. The "combination" response was eliminated and replaced with "other (please specify) ______." These changes allow for easier correction and verification of questionable responses.

The Complications or Failures category was restructured into minor (did not require hospitalization) and major (did require hospitalization) with treatment options offered for each as a means of verifying coding intentions. The complications response choices remained unchanged, with two responses (heavy bleeding/hemorrhage and infection) listed under both "minor" and "major" complications. These changes and the differences between minor and major complications were determined with the assistance of provider agencies' staff.

Population

The 1988 population estimates used in this publication are the only known source of population data by age group, sex and county available at the time of publication of this report. In 1980, the census data were used to estimate the state population. These data were considered to be highly accurate due to various checking and follow-up procedures. The 1981 through 1988 estimates are postcensal estimates, and a modified version of the cohort-component method was used in their production. The cohort-component method is an established method of estimating population and is normally very accurate if birth, death, census and migration data are of good quality. Although these estimates are not as accurate as an actual census, they are still very useful estimators of the actual population of Minnesota. All rates in this publication have been calculated using these 1988 population estimates as a denominator.

Since the method for producing estimates was modified after the 1984 publication, age/sex estimates for some counties may show some marked changes between 1984 and 1988. Therefore, caution is advised in interpreting changes in age-specific rates, since the differences may be artifacts rather than meaningful observations.

Occupational Injuries and Illnesses

Nature of Injury or Illness, Source or Injury of Illness, Type of Accident and Part of Body Affected are coded according to ANSIZ 16.2--1962 "Method of Recording Basic Facts Relating to the Nature and Occurrence of Work Injuries." Occupations are coded using Census Bureau Codes. Industries are coded using four digit Standard Industry Classification Codes.

The quality of occupational injuries and illnesses data is related to the completeness and the accuracy of coding the "First Report of Injury." Extensive input editing by computer edit programs is performed on basic codes. Also, periodic reviews by Regional Bureau of Labor Statistics personnel are performed to audit the coding function.

Poison

The quality of poison exposure data is related to the completeness and accuracy of the information contained on the report forms. Since the data are purchased from an outside vendor, the Minnesota Department of Health has no control over edit procedures; however, records are edited and finalized according to AAPCC's standards.

The total number of poison exposures in Minnesota is likely undercounted, since all exposures are probably not phoned in to the Regional Poison Control Centers. However, the data included are a good representation of Minnesota's overall poison experience.

D. GEOGRAPHIC ALLOCATION

Vital Events

Vital events can be classified geographically in two ways. The first is by place of occurrence, i.e., the actual state, county and minor civil division in which the birth or death took place. The second and more customary way is by place of residence, i.e., the state, county and minor civil division stated to be the usual residence of the decedent in the case of deaths or of the mother in the case of a newborn. Fetal deaths and infant deaths, in cases where the child was never discharged from the hospital, are classified to the residence of the mother.

While occurrence statistics are accurate and have both administrative value and some statistical importance, resident statistics are the more useful tool when constructing health indices for planning and evaluation purposes. The statistics provided in this report are residence data unless otherwise stated.

Allocation of vital events by place of residence is sometimes difficult, because classification depends entirely on the statement of the usual place of residence furnished by the informant at the time the original certificate is completed. For various reasons, this statement may be incorrect or incomplete. For example, mailing addresses very often differ from the actual geographic residence.

Where the mailing address is a rural delivery number or when an unincorporated place is given as the place of resident, it is seldom possible to allocate the event to a specific township or the correct minor civil division if this information is not supplied. How often incorrect information on residence is recorded is not known, but it is generally due to a lack of information concerning the exact location of residence or misunderstanding of the question on the part of the informant.

This problem is applicable generally only to minor civil division level data. Resident count for the state as a whole are, for all practical purposes, very accurate. County resident figures are substantially correct and can be used with a high degree of confidence.

Each of Minnesota's 87 counties is classified into one of eight health districts. Some data presented in this report are aggregated by MDH health district. Appendix C is a map showing the county distribution of health districts in Minnesota.

Reported Induced Abortions

Data on induced abortions are collected and coded to the county and minor civil division of residence of the recipient. The quality of geographic allocation is highly suspect due to total dependence on the patient responses at the time of the procedure.

This report does not include county level tables due to the chance of inadvertent disclosure of individual identity. However, a map illustrating county totals in ranges is included as Figure 1, page 58.

Population

The 1988 population estimates by age group and sex are available at the state and county level, as well as estimates for Minneapolis, St. Paul and Duluth. Population estimates of the 1988 population of every city and township outside the seven-county Twin Cities Metropolitan Area are created by the Office of the State Demographer (These estimates, however, are not broken down by age group or sex). Estimates of the population of cities and townships inside the seven-county Twin Cities Metropolitan Area are created by the Metropolitan Council.

E. RATES

Absolute counts of health-related events do not readily lend themselves to analysis and comparison between years and between various geographic areas because of population differences and the small number of reported events. These demographic differences include total number, age and sex distributions, and ethnic or racial differentials. In order to assess the health status of a particular population at a specified time, the absolute number of events is converted to a relative number such as a probability of living or dying, a rate, a ratio, or an index. This conversion is made by relating the crude number of events to the living population at risk in a particular area at a specified time. Please refer to Appendix A, pages 159-160 for definitions of rates used in *1988 Minnesota Health Statistics*.

Overview of 1988 Vital Statistics

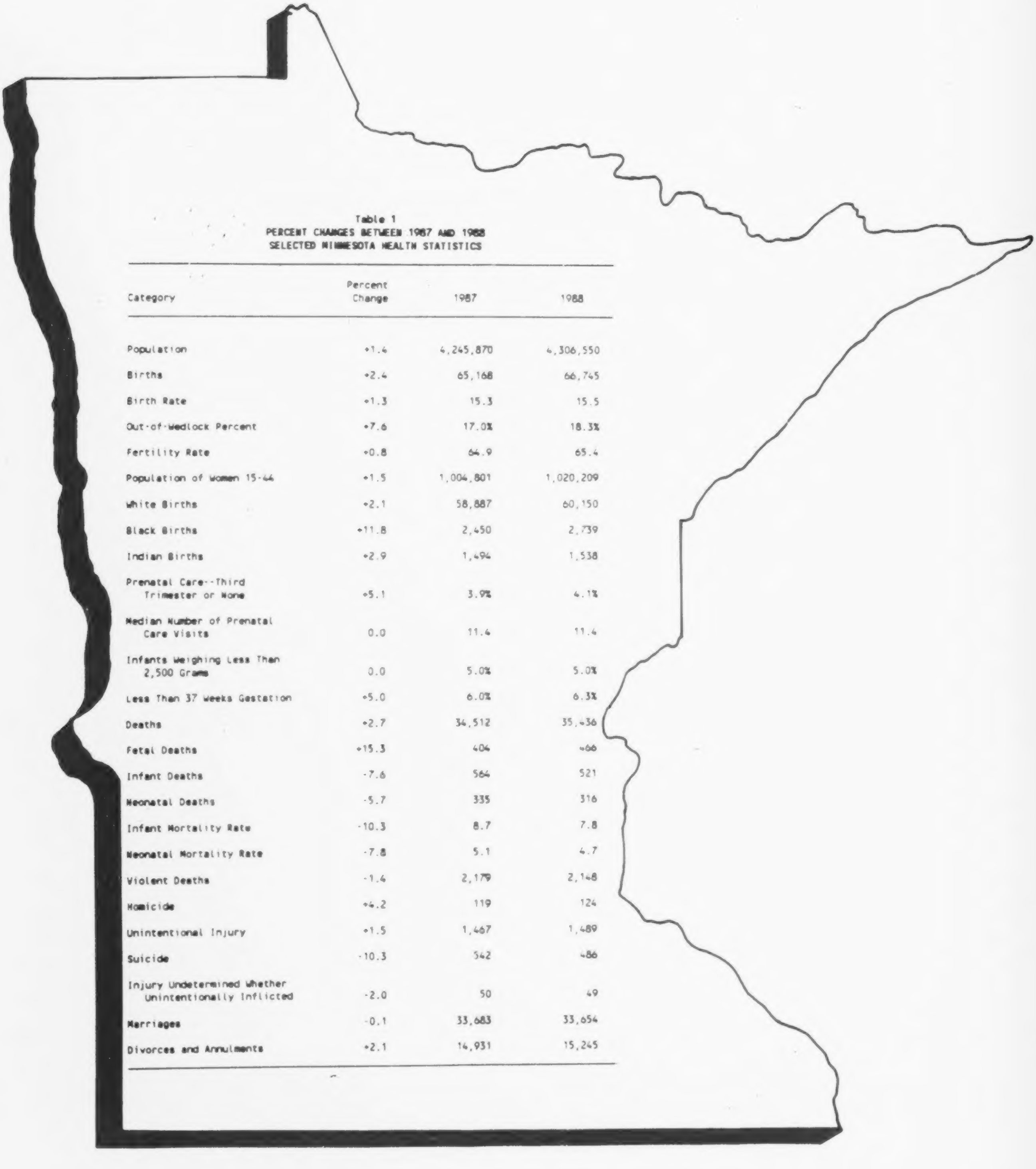


Table 1
PERCENT CHANGES BETWEEN 1987 AND 1988
SELECTED MINNESOTA HEALTH STATISTICS

Category	Percent Change	1987	1988
Population	+1.4	4,245,870	4,306,550
Births	+2.4	65,168	66,745
Birth Rate	+1.3	15.3	15.5
Out-of-Wedlock Percent	+7.6	17.0%	18.3%
Fertility Rate	+0.8	64.9	65.4
Population of Women 15-44	+1.5	1,004,801	1,020,209
White Births	+2.1	58,887	60,150
Black Births	+11.8	2,450	2,739
Indian Births	+2.9	1,494	1,538
Prenatal Care--Third Trimester or None	+5.1	3.9%	4.1%
Median Number of Prenatal Care Visits	0.0	11.4	11.4
Infants Weighing Less Than 2,500 Grams	0.0	5.0%	5.0%
Less Than 37 Weeks Gestation	+5.0	6.0%	6.3%
Deaths	+2.7	34,512	35,436
Fetal Deaths	+15.3	404	466
Infant Deaths	-7.6	564	521
Neonatal Deaths	-5.7	335	316
Infant Mortality Rate	-10.3	8.7	7.8
Neonatal Mortality Rate	-7.8	5.1	4.7
Violent Deaths	-1.4	2,179	2,148
Homicide	+4.2	119	124
Unintentional Injury	+1.5	1,467	1,489
Suicide	-10.3	542	486
Injury Undetermined Whether Unintentionally Inflicted	-2.0	50	49
Marriages	-0.1	33,683	33,654
Divorces and Annulments	+2.1	14,931	15,245

Table 2
RESIDENT LIVE BIRTHS, CRUDE BIRTH RATES*, AND FERTILITY RATES**, MINNESOTA AND UNITED STATES, 1940, 1945, 1950, 1955, 1960, 1965-1988

	Live Births		Crude Birth Rate*		Fertility Rate**	
Year	Minnesota	United States	Minnesota	United States	Minnesota	United States
1940	52,915	2,559,000	19.0	19.4	81.0	79.9
1945	54,656	2,858,000	20.9	20.4	85.1	85.9
1950	75,078	3,632,000	25.2	24.1	119.1	106.2
1955	81,532	4,097,000	25.7	25.0	130.1	118.3
1960	87,523	4,257,850	25.6	23.7	136.0	118.0
1965	70,810	3,760,358	19.7	19.4	105.9	96.3
1966	66,781	3,606,274	18.5	18.4	96.0	90.8
1967	64,532	3,520,959	17.6	17.8	96.8	87.2
1968	64,759	3,501,564	17.5	17.6	93.2	85.2
1969	65,961	3,600,206	17.6	17.9	90.5	86.1
1970	68,449	3,731,386	18.0	18.4	88.4	87.9
1971	62,498	3,555,970	16.2	17.2	78.2	81.6
1972	56,395	3,258,411	14.5	15.6	69.6	73.1
1973	53,783	3,136,965	13.8	14.8	65.4	68.8
1974	55,753	3,159,958	14.2	14.8	66.8	67.8
1975	56,463	3,144,198	14.4	14.6	65.4	66.0
1976	56,599	3,167,788	14.3	14.6	63.8	65.0
1977	60,284	3,326,632	15.2	15.1	66.8	66.8
1978	61,997	3,333,279	15.5	15.0	67.1	65.5
1979	65,325	3,494,398	16.1	15.6	69.0	67.2
1980	67,843	3,612,258	16.6	15.9	70.8	68.4
1981	68,652	3,629,238	16.7	15.8	71.0	67.4
1982	68,512	3,680,537	16.6	15.9	70.1	67.3
1983	65,559	3,638,933	15.8	15.5	66.8	65.8
1984	66,715	3,669,141	16.0	15.5	67.9	65.4
1985	67,412	3,760,561	16.1	15.8	68.0	66.2
1986	65,766	3,756,547	15.7	15.6	65.9	65.4
1987	65,168	3,809,394***	15.3	15.7***	64.9	65.7***
1988	66,745	3,913,000	15.5	15.9	65.4	67.3

* Live Births per 1,000 Population

** Live Births per 1,000 Female Population of Ages 15-44

*** Provisional data

Table 3

NUMBERS AND RATES OF RESIDENT LIVE BIRTHS, DEATHS, AND MATERNAL DEATHS
MINNESOTA AND UNITED STATES,
1940, 1945, 1950, 1955, 1960, 1965-1988

	Live Births				Deaths				Maternal Deaths			
	Minnesota		United States		Minnesota		United States		Minnesota		United States	
Year	Number	Rate*	Number	Rate*	Number	Rate**	Number	Rate**	Number	Rate***	Number	Rate***
1940	52,915	19.0	2,559,000	19.4	26,354	9.4	1,417,269	10.8	15	217.3	8,876	376.0
1945	54,656	20.9	2,858,000	20.4	26,763	10.2	1,401,719	10.6	75	137.2	5,668	207.2
1950	75,078	25.2	3,632,000	24.1	27,897	9.4	1,452,454	9.6	43	57.3	2,960	83.3
1955	81,532	25.7	4,097,000	25.0	28,574	9.0	1,528,717	9.3	27	33.1	1,901	47.0
1960	87,523	25.6	4,257,850	23.7	31,596	9.3	1,711,982	9.5	13	14.9	1,579	37.1
1965	70,810	19.7	3,760,358	19.4	32,477	9.0	1,828,136	9.4	12	16.9	1,189	31.6
1966	66,781	18.5	3,606,274	18.4	33,222	9.2	1,863,149	9.5	12	18.0	1,049	29.1
1967	64,532	17.6	3,520,959	17.8	32,917	9.0	1,851,323	9.4	6	9.3	987	28.0
1968	64,759	17.5	3,501,564	17.6	33,890	9.2	1,930,082	9.7	5	7.7	859	24.5
1969	65,961	17.6	3,600,206	17.9	33,791	9.0	1,921,990	9.5	11	16.7	801	22.2
1970	68,449	18.0	3,731,386	18.4	33,919	8.9	1,921,031	9.5	9	13.1	803	21.5
1971	62,498	16.2	3,555,970	17.2	33,871	8.8	1,927,542	9.3	14	22.4	668	18.8
1972	56,395	14.5	3,258,411	15.6	34,565	8.9	1,963,944	9.4	4	7.1	612	18.8
1973	53,783	13.8	3,136,965	14.8	33,899	8.7	1,973,003	9.3	4	7.4	477	15.2
1974	55,753	14.2	3,159,958	14.8	33,501	8.6	1,934,388	9.1	4	7.2	462	14.6
1975	56,463	14.4	3,144,198	14.6	32,686	8.3	1,892,879	8.8	3	5.3	403	12.8
1976	56,599	14.3	3,167,788	14.6	32,798	8.3	1,909,440	8.8	2	3.5	390	12.3
1977	60,284	15.2	3,326,632	15.1	32,281	8.1	1,899,597	8.6	4	6.6	373	11.2
1978	61,997	15.5	3,333,279	15.0	33,312	8.3	1,927,788	8.7	6	9.7	321	9.6
1979	65,325	16.1	3,494,398	15.6	32,082	7.9	1,913,841	8.5	3	4.6	336	9.6
1980	67,843	16.6	3,612,258	15.9	33,415	8.2	1,989,841	8.8	4	5.9	334	9.2
1981	68,652	16.7	3,629,238	15.8	32,815	8.0	1,977,981	8.6	2	2.9	309	8.5
1982	68,512	16.6	3,680,537	15.9	32,976	8.0	1,974,797	8.5	3	4.4	292	7.9
1983	65,559	15.8	3,638,933	15.5	33,902	8.2	2,019,201	8.6	2	3.1	290	8.0
1984	66,715	16.0	3,669,141	15.5	33,746	8.1	2,039,369	8.6	5	7.5	285	7.8
1985	67,412	16.1	3,760,561	15.8	34,793	8.3	2,086,440	8.7	3	4.5	295	7.8
1986	65,766	15.7	3,756,547	15.6	35,070	8.3	2,105,361	8.7	1	1.5	272	7.2
1987	65,168	15.3	3,809,394	15.7	34,512	8.1	2,127,000+	8.7+	1	1.5	240+	6.3+
1988	66,745	15.5	3,913,000+	15.9+	35,436	8.2	2,171,000+	8.8+	4	6.0	300+	7.7+

* Live Births per 1,000 Population
** Deaths per 1,000 Population
*** Maternal Deaths per 100,000 Live Births
+ Provisional Data

Table 4
NUMBERS AND RATES OF INFANT DEATHS, NEONATAL DEATHS, AND FETAL DEATHS
MINNESOTA AND UNITED STATES,
1940, 1945, 1950, 1955, 1960, 1965-1988

	Infant Deaths				Neonatal Deaths				Fetal Deaths			
	Minnesota		United States		Minnesota		United States		Minnesota		United States	
Year	Number	Rate*	Number	Rate*	Number	Rate**	Number	Rate**	Number	Rate***	Number	Rate***
1940	1,772	33.3	110,984	47.0	1,246[+]	23.4	67,866	28.8	1,144[+]	21.5	73,802	31.3
1945	1,698	31.1	104,684	38.3	1,226[+]	22.6	66,593	24.3	1,141	20.9	65,513	23.9
1950	1,876	25.0	103,825	29.2	1,430	19.0	72,855	20.5	1,208	16.1	68,262	19.2
1955	1,779	21.8	106,903	26.4	1,386	17.0	77,351	19.1	1,173	14.4	69,153	17.1
1960	1,881	21.5	110,873	26.0	1,397	16.0	79,733	18.7	1,058	12.1	68,480	16.1
1965	1,432	20.2	92,866	24.7	1,075	15.2	66,419	17.7	921	13.0	60,859	16.2
1966	1,299	19.5	85,516	23.7	987	14.8	61,941	17.2	819	12.3	56,637	15.7
1967	1,288	20.0	79,028	22.4	980	15.2	58,127	16.5	712	11.0	14,934	15.6
1968	1,192	18.4	76,263	21.8	894	13.8	56,456	16.1	740	11.4	55,293	15.8
1969	1,110	16.8	75,073	20.9	876	13.3	56,085	15.6	681	10.3	50,749	14.1
1970	1,203	17.6	74,667	20.0	944	13.8	56,279	15.1	705	10.3	52,961	14.2
1971	1,081	17.3	67,981	19.1	829	13.3	50,496	14.2	594	9.5	47,818	13.4
1972	946	16.8	60,182	18.5	704	12.5	44,432	13.6	533	9.5	41,380	12.7
1973	831	15.5	55,581	17.7	630	11.7	40,664	13.0	481	8.9	38,309	12.2
1974	809	14.5	52,776	16.7	598	10.7	38,738	12.3	523	9.4	36,281	11.5
1975	771	13.7	50,525	16.1	582	10.3	36,416	11.6	479	8.5	33,796	10.7
1976	789	13.9	48,265	15.2	565	10.9	34,587	10.9	487	8.6	33,111	10.5
1977	664	11.0	46,975	14.1	478	7.9	32,860	9.9	471	7.8	33,053	9.9
1978	739	11.9	45,945	13.8	513	8.3	31,618	9.5	468	7.6	32,301	9.7
1979	700	10.7	45,665	13.1	469	7.2	30,980	8.9	445	6.8	32,969	9.4
1980	679	10.0	45,526	12.6	421	6.2	30,618	8.5	449	6.6	33,353	9.2
1981	701	10.2	43,305	11.9	448	6.5	29,121	8.0	461	6.7	32,596	9.0
1982	645	9.4	42,401	11.5	402	5.9	28,335	7.7	429	6.3	NA	NA
1983	645	9.8	40,627	11.2	410	6.3	26,507	7.3	457	7.0	NA	NA
1984	590	8.8	39,580	10.8	362	5.4	25,691	7.0	465	7.0	NA	NA
1985	591	8.8	40,030	10.6	364	5.4	26,179	7.0	439	6.5	NA	NA
1986	606	9.2	38,891	10.4	365	5.5	25,212	6.7	400	6.1	NA	NA
1987	564	8.7	38,000[@]	10.0[@]	335	5.1	24,940[@]	6.5[@]	404	6.2	NA	NA
1988	521	7.8	38,700[@]	9.9[@]	316	4.7	25,100[@]	6.4[@]	466	7.0	NA	NA

---

* Infant Deaths per 1,000 Live Births

** Neonatal Deaths per 1,000 Live Births

*** Fetal Deaths per 1,000 Live Births

[+] Place of Occurrence

[@] Provisional Data

Table 5

MARRIAGES AND DIVORCES AND ANNULMENTS, NUMBERS AND RATES*

MINNESOTA AND UNITED STATES, 1940, 1945, 1950, 1955, 1960, 1965-1988

	Marriages				Divorces			
	Minnesota		United States		Minnesota		United States	
	#	Rate*	#	Rate*	#	Rate**	#	Rate**
1940	27,419	9.8	1,595,879	12.1	2,957	1.1	264,000	2.0
1945	26,195	10.0	1,612,992	12.2	5,326	2.0	485,000	3.5
1950	30,991	10.4	1,667,231	11.1	4,049	1.4	385,000	2.6
1955	24,854	7.8	1,531,000	9.3	3,757	1.2	377,000	2.3
1960	23,596	6.9	1,523,000	8.5	4,175	1.2	393,000	2.2
1965	26,472	7.4	1,800,000	9.3	4,848	1.3	479,000	2.5
1966	26,566	7.3	1,857,000	9.5	5,457	1.5	499,000	2.5
1967	28,163	7.7	1,927,000	9.7	6,148	1.7	523,000	2.6
1968	30,671	8.3	2,069,000	10.4	6,646	1.8	584,000	2.9
1969	31,971	8.5	2,145,000	10.6	7,496	2.0	639,000	3.2
1970	31,280	8.2	2,158,802	10.6	8,221	2.2	708,000	3.5
1971	31,196	8.1	2,190,481	10.6	9,494	2.5	773,000	3.7
1972	32,227	8.3	2,282,154	10.9	10,214	2.6	845,000	4.0
1973	32,996	8.5	2,284,108	10.8	11,113	2.9	915,000	4.3
1974	33,547	8.6	2,229,667	10.5	12,204	3.1	977,000	4.6
1975	32,237	8.2	2,152,662	10.0	13,147	3.3	1,036,000	4.8
1976	32,027	8.1	2,154,807	9.9	13,764	3.5	1,083,000	5.0
1977	33,040	8.3	2,178,367	9.9	13,852	3.5	1,091,000	5.0
1978	33,480	8.4	2,282,272	10.3	14,183	3.5	1,130,000	5.1
1979	37,020	9.1	2,331,337	10.4	14,542	3.6	1,181,000	5.3
1980	37,625	9.2	2,390,252	10.6	15,092	3.7	1,189,000	5.2
1981	37,638	9.2	2,422,145	10.6	16,329	4.0	1,213,000	5.3
1982	37,409	9.1	2,456,278	10.6	15,177	3.7	1,170,000	5.0
1983	36,259	8.7	2,445,604	10.5	14,789	3.6	1,158,000	4.9
1984	36,223	8.7	2,477,192	10.5	14,758	3.5	1,169,000	5.0
1985	35,059	8.4	2,412,625	10.1	14,795	3.5	1,190,000	5.0
1986	34,199	8.1	2,400,000***	10.0***	14,426	3.4	1,178,000	4.9
1987	33,683	7.9	2,421,000***	9.9***	14,931	3.5	1,157,000***	4.8***
1988	33,654	7.8	2,389,000***	9.7***	15,245	3.5	1,183,000***	4.8***

* Marriages per 1,000 Population

** Divorces and Annulments per 1,000 Population

*** Provisional Data

Table 6
BIRTHS, DEATHS, INFANT DEATHS, FETAL DEATHS, MARRIAGES, DIVORCES AND ANNULMENTS BY MONTH
MINNESOTA OCCURRENCES, 1988

	Births	Deaths	Infant Deaths	Fetal Deaths	Marriages	Divorces and Annulments
Total	66,410	35,637	543	466	33,654	15,245
January	5,164	3,365	54	37	1,209	981
February	5,166	3,160	56	29	1,408	1,093
March	5,629	3,132	36	25	1,293	1,154
April	5,526	2,883	39	44	2,747	1,262
May	5,927	2,895	44	37	3,121	1,229
June	5,729	2,684	31	53	4,299	1,361
July	5,718	2,810	48	40	3,476	1,239
August	5,790	2,848	45	37	4,193	1,478
September	5,805	2,705	43	45	4,230	1,210
October	5,321	3,013	39	34	3,696	1,397
November	5,352	3,011	51	41	1,922	1,316
December	5,283	3,131	57	44	2,060	1,525

Table 7
LIVE BIRTHS, FETAL DEATHS, DEATHS, INFANT DEATHS, AND NEONATAL DEATHS BY URBAN AREA OF RESIDENCE, MINNESOTA, 1988

Urban Area*	Live Births	Fetal Deaths	Deaths	Infant Deaths	Neonatal Deaths
Afton	26	-	12	-	-
Albert Lea	278	2	250	6	3
Alexandria	126	-	173	-	-
Andover	220	1	24	1	-
Anoka	416	2	138	3	-
Apple Valley	537	5	92	3	2
Arden Hills	130	1	97	-	-
Aurora	24	-	41	-	-
Austin	278	1	292	4	2
Baxter	49	-	13	-	-
Bayport	16	-	28	-	-
Belle Plaine	59	-	33	-	-
Bemidji	184	1	155	2	2
Benson	40	-	66	1	-
Blaine	627	3	90	4	3
Bloomington	1,133	8	530	7	4
Blue Earth	39	-	85	1	-
Brainerd	287	7	200	2	2
Breckenridge	52	1	55	-	-
Brooklyn Center	461	2	195	4	3
Brooklyn Park	1,091	5	150	6	3
Buffalo	181	-	95	4	3
Burnsville	862	3	135	8	7
Caledonia	61	-	49	-	-
Cambridge	70	1	108	-	-
Cannon Falls	56	-	36	1	1
Champlin	448	2	37	1	1
Chanhassen	199	1	17	2	2
Chaska	240	4	62	2	1
Chisholm	59	-	87	2	1
Circle Pines	211	1	27	1	-
Cloquet	176	1	138	2	1
Columbia Heights	254	2	197	3	2
Coon Rapids	837	5	175	7	6
Corcoran	83	-	11	-	-
Cottage Grove	308	1	59	3	2
Crookston	113	2	104	2	-
Crystal	339	2	159	2	1
Dayton	52	-	9	-	-
Deephaven	44	-	20	2	2
Detroit Lakes	118	-	145	2	-
Dilworth	41	-	9	-	-
Duluth	1,198	6	1,082	10	5
Eagan	1,020	7	69	8	6
East Bethel	87	1	18	-	-
East Grand Forks	194	1	77	1	1
Eden Prairie	767	1	85	6	3
Edina	453	3	401	3	2
Elk River	209	1	70	1	1
Ely	40	-	79	-	-

Table 7
LIVE BIRTHS, FETAL DEATHS, DEATHS, INFANT DEATHS, AND NEONATAL DEATHS BY URBAN AREA OF RESIDENCE, MINNESOTA, 1988 (CONT.)

Urban Area*	Live Births	Fetal Deaths	Deaths	Infant Deaths	Neonatal Deaths
Eveleth	49	-	73	1	1
Excelsior	74	-	38	1	1
Fairmont	136	-	141	3	2
Falcon Heights	104	-	29	-	-
Faribault	248	4	186	2	-
Farmington	167	-	43	2	1
Fergus Falls	172	1	176	2	2
Forest Lake	162	1	61	1	-
Fridley	427	2	153	-	-
Gilbert	28	-	28	1	1
Glencoe	73	1	60	-	-
Glenwood	31	-	61	1	1
Golden Valley	252	1	197	2	2
Goodview	2	-	3	-	-
Grand Rapids	120	-	152	1	1
Granite Falls	40	1	54	-	-
Ham Lake	144	1	20	1	1
Hastings	225	1	116	2	2
Hermantown	18	-	20	1	1
Hibbing	208	4	212	2	-
Hopkins	223	1	166	4	3
Hoyt Lakes	19	-	9	-	-
Hugo	64	1	15	1	1
Hutchinson	200	2	113	3	2
Independence	18	-	6	1	1
International Falls	90	-	99	-	-
Inver Grove Heights	426	3	81	2	1
Jackson	46	1	41	-	-
Jordan	72	-	27	3	2
Kasson	64	-	34	1	1
La Crescent	69	-	33	4	2
Lake City	46	1	49	-	-
Lake Elmo	97	-	32	2	-
Lakeville	375	4	36	2	2
Le Sueur	60	-	56	-	-
Lino Lakes	150	-	15	1	-
Litchfield	85	-	97	2	1
Little Canada	128	1	45	1	-
Little Falls	113	2	142	3	1
Long Prairie	32	-	43	1	1
Luverne	48	-	59	-	-
Mahtomedi	91	-	16	-	-
Mankato	387	1	234	3	3
Maple Grove	746	3	58	2	1
Maplewood	492	1	264	5	2
Marshall	178	-	79	-	-
Medina	37	-	9	-	-
Mendota Heights	104	1	39	-	-
Minneapolis	6,481	55	3,853	73	50
Minnetonka	575	6	211	-	-

Table 7
LIVE BIRTHS, FETAL DEATHS, DEATHS, INFANT DEATHS, AND NEONATAL DEATHS BY URBAN AREA OF RESIDENCE, MINNESOTA, 1988 (CONT.)

Urban Area*	Live Births	Fetal Deaths	Deaths	Infant Deaths	Neonatal Deaths
Minnetrista	34	1	4	-	-
Montevideo	77	-	111	1	-
Monticello	152	3	46	-	-
Moorhead	451	2	234	7	2
Mora	32	-	65	-	-
Morris	52	-	57	-	-
Mound	177	-	59	1	1
Mounds View	224	1	50	3	3
Mountain Iron	22	-	29	-	-
New Brighton	283	-	150	-	-
New Hope	320	-	260	3	3
New Prague	62	1	45	-	-
New Ulm	169	1	133	2	2
Newport	64	-	15	-	-
North Mankato	177	-	44	-	-
North Oaks	34	-	14	-	-
North Saint Paul	166	1	69	2	-
Northfield	173	1	98	-	-
Oak Park Heights	10	-	14	-	-
Oakdale	340	2	58	2	2
Olivia	34	1	43	-	-
Orono	42	-	18	1	1
Ortonville	22	-	31	-	-
Osseo	50	-	52	-	-
Owatonna	313	3	168	-	-
Park Rapids	37	1	80	1	1
Pipestone	74	-	80	1	-
Plymouth	792	4	137	5	3
Princeton	66	-	51	-	-
Prior Lake	231	1	57	3	2
Proctor	33	-	37	-	-
Ramsey	154	1	25	2	1
Red Wing	191	2	189	1	1
Redwood Falls	57	-	56	-	-
Richfield	493	7	281	2	-
Robbinsdale	243	-	174	2	2
Rochester	1,403	8	472	4	3
Rosemount	212	1	30	1	1
Roseville	419	2	321	5	3
Saint Anthony	62	1	86	-	-
Saint Cloud	716	3	300	3	2
Saint James	57	2	66	1	1
Saint Joseph	44	2	14	-	-
Saint Louis Park	635	4	416	5	5
Saint Paul	5,126	36	2,700	53	31
Saint Paul Park	79	-	16	-	-
Saint Peter	98	1	89	-	-
Sartell	84	-	43	-	-
Sauk Centre	53	-	54	4	3
Sauk Rapids	180	-	81	1	1

Table 7
LIVE BIRTHS, FETAL DEATHS, DEATHS, INFANT DEATHS, AND NEONATAL DEATHS BY URBAN AREA OF RESIDENCE, MINNESOTA, 1988 (CONT.)

Urban Area*	Live Births	Fetal Deaths	Deaths	Infant Deaths	Neonatal Deaths
Savage	267	3	22	1	-
Shakopee	200	3	75	-	-
Shoreview	385	2	76	-	-
Shorewood	61	-	12	-	-
Silver Bay	17	1	16	-	-
Sleepy Eye	54	-	65	-	-
South International Falls	26	-	14	-	-
South Saint Paul	294	1	190	3	1
Spring Lake Park	98	1	26	-	-
Spring Valley	45	2	46	-	-
Staples	52	1	54	-	-
Stewartville	93	-	60	2	2
Stillwater	254	-	163	1	1
Thief River Falls	111	-	124	1	-
Two Harbors	47	3	61	-	-
Vadnais Heights	209	1	27	1	-
Virginia	96	-	177	-	-
Waconia	60	-	42	-	-
Wadena	64	-	61	-	-
Waite Park	86	-	41	1	-
Waseca	131	1	57	-	-
Wayzata	104	-	49	-	-
Wells	35	-	42	-	-
West Saint Paul	248	-	193	-	-
White Bear Lake	489	8	157	2	-
Willmar	300	1	165	2	1
Windom	50	-	47	-	-
Winona	326	3	278	3	1
Woodbury	301	2	89	3	3
Worthington	131	2	107	-	-

* Municipalities with population of 2,500 or more as of the 1980 Census.

Live Births

Every day of 1988, residents of Minnesota experienced an average of:

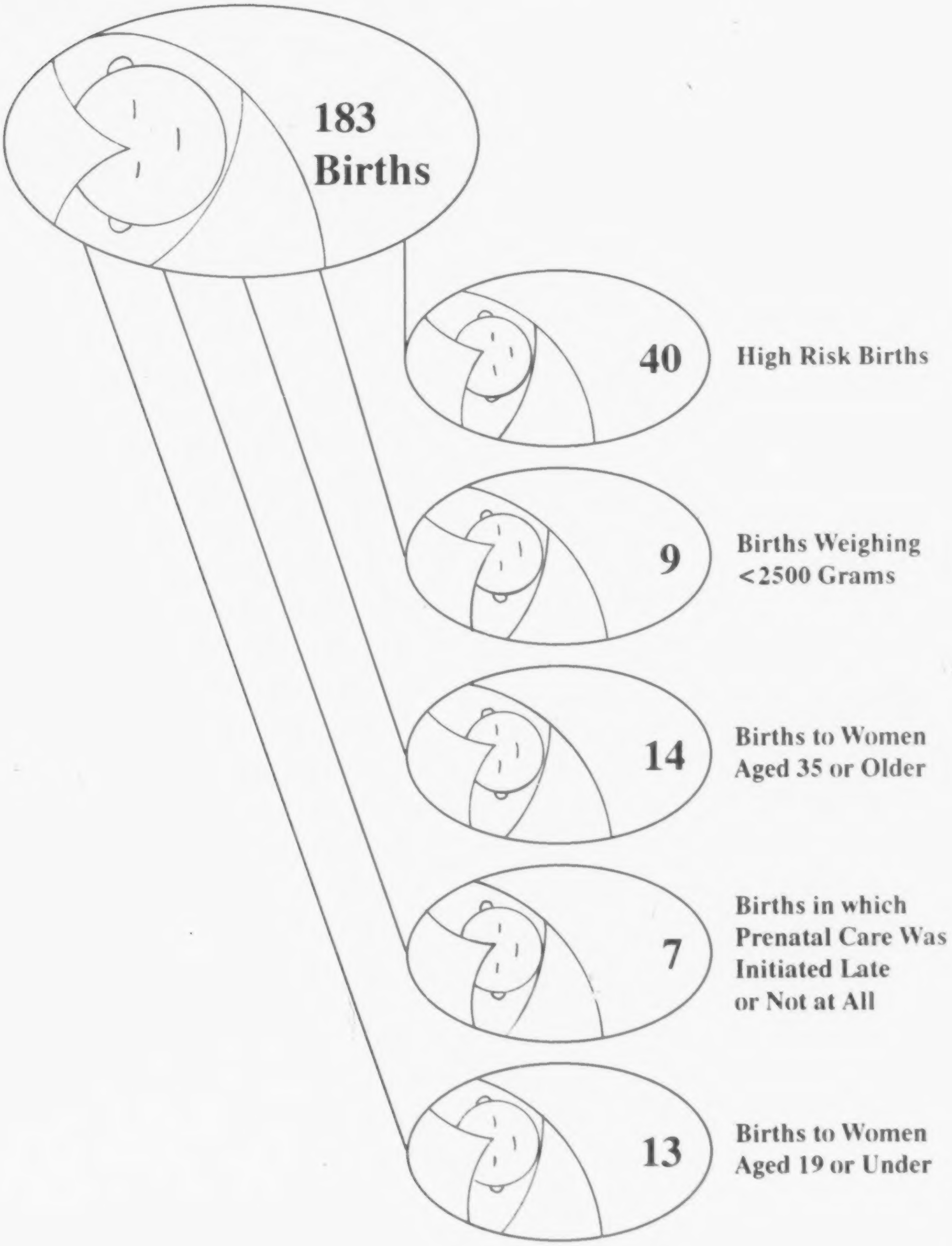


Table 8
LIVE BIRTHS BY COUNTY OF OCCURRENCE DISTRIBUTED ACCORDING TO RESIDENCE, RESIDENT LIVE BIRTHS DISTRIBUTED ACCORDING TO PLACE OF BIRTH, MINNESOTA, 1988

	Births Occurring in County				Resident Births		
					Outside County		
County	Total	County Residents	Other Minnesota Residents	Out of State Residents	Within Minnesota	Outside Minnesota	Total
State Total	66,410	45,959	18,625	1,826	18,625	2,161	66,745
Aitkin	68	63	5	-	67	1	131
Anoka	4,042	2,478	1,560	4	1,521	5	4,004
Becker	397	323	74	-	52	73	448
Beltrami	880	602	277	1	20	6	628
Benton	1	1	-	-	515	-	516
Big Stone	124	63	16	45	18	8	89
Blue Earth	1,106	642	463	1	52	3	697
Brown	530	363	165	2	27	2	392
Carlton	243	169	74	-	194	1	364
Carver	840	332	508	-	499	1	832
Cass	3	3	-	-	303	4	310
Chippewa	156	104	47	5	82	1	187
Chisago	323	216	97	10	205	41	462
Clay	5	5	-	-	6	659	670
Clearwater	50	44	6	-	65	4	113
Cook	27	27	-	-	24	-	51
Cottonwood	110	77	33	-	47	7	131
Crow Wing	743	562	181	-	39	-	601
Dakota	3,101	2,350	701	50	2,320	7	4,677
Dodge	-	-	-	-	209	-	209
Douglas	557	374	181	2	25	2	401
Faribault	115	90	5	20	123	1	214
Fillmore	28	26	2	-	203	65	294
Freeborn	559	402	98	59	64	11	477
Goodhue	519	349	48	122	175	2	526
Grant	19	17	2	-	58	2	77
Hennepin	20,289	15,009	5,164	116	1,550	35	16,594
Minneapolis	10,892	4,666	6,128	98	1,802	13	6,481
Houston	2	2	-	-	7	295	304
Hubbard	172	107	64	1	62	8	177
Isanti	419	221	196	2	166	-	387
Itasca	488	435	53	-	92	1	528
Jackson	29	26	2	1	127	17	170
Kanabec	184	90	94	-	65	-	155
Kandiyohi	877	569	302	6	33	1	603
Kittson	54	39	14	1	14	17	70
Koochiching	131	129	1	1	32	2	163
Lac Qui Parle	69	65	3	1	47	-	112
Lake	59	52	6	1	61	1	114
Lake of the Woods	57	43	13	1	15	6	64
Le Sueur	53	43	10	-	292	-	335
Lincoln	73	41	14	18	29	6	76
Lyon	413	308	104	1	25	8	341
McLeod	493	328	164	1	144	-	472
Mahnomen	34	21	12	1	32	9	62
Marshall	25	24	1	-	55	53	132
Martin	326	239	32	55	21	3	263
Meeker	113	92	21	-	227	-	319
Mille Lacs	351	200	151	-	70	-	270
Morrison	367	308	59	-	155	1	464
Mower	475	365	94	16	82	6	453

Table 8

LIVE BIRTHS BY COUNTY OF OCCURRENCE DISTRIBUTED ACCORDING TO RESIDENCE, RESIDENT LIVE BIRTHS DISTRIBUTED ACCORDING TO PLACE OF BIRTH, MINNESOTA, 1988 (CONT.)

	Births Occurring in County				Resident Births		
					Outside County		
County	Total	County Residents	Other Minnesota Residents	Out of State Residents	Within Minnesota	Outside Minnesota	Total
Murray	45	42	3	-	77	7	126
Nicollet	120	75	43	2	316	1	392
Nobles	412	200	175	37	40	29	269
Norman	16	13	-	3	19	78	110
Olmsted	2,768	1,859	850	59	25	2	1,886
Otter Tail	581	495	82	4	143	48	686
Pennington	247	143	103	1	8	20	171
Pine	17	16	1	-	236	9	261
Pipestone	128	107	19	2	34	45	186
Polk	257	199	58	-	25	278	502
Pope	87	68	19	-	65	-	133
Ramsey	9,813	6,353	3,254	206	1,902	21	8,276
St. Paul	7,707	3,737	3,794	176	1,380	9	5,126
Red Lake	1	-	1	-	49	5	54
Redwood	146	112	34	-	93	1	206
Renville	96	89	4	3	126	1	216
Rice	590	478	112	-	146	-	624
Rock	156	85	60	11	8	27	120
Roseau	252	219	19	14	31	16	266
St. Louis	3,048	2,249	396	403	36	14	2,299
Duluth	2,307	1,174	731	402	11	13	1,198
Scott	982	485	495	2	556	5	1,046
Sherburne	5	5	-	-	618	1	624
Sibley	60	56	4	-	145	-	201
Stearns	2,549	1,584	960	5	151	5	1,740
Steele	400	350	48	2	116	-	466
Stevens	128	94	33	1	24	-	118
Swift	70	63	7	-	73	-	136
Todd	144	99	45	-	231	1	331
Traverse	68	35	17	16	20	7	62
Wabasha	184	139	24	21	160	1	300
Wadena	334	131	203	-	39	6	176
Waseca	178	140	37	1	99	-	239
Washington	672	365	142	165	1,743	19	2,127
Watonwan	139	116	23	-	47	1	164
Wilkin	352	74	25	253	8	20	102
Winona	511	412	39	60	104	113	629
Wright	616	491	125	-	722	1	1,214
Yellow Medicine	139	80	48	11	71	2	153
Unknown	-	-	-	-	3	2	5

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

	State	Aitkin	Anoka	Becker	Beltrami	Benton	Big Stone	Blue Earth
Live Births	66,745*	131	4,004	448	628	516	89	697
Fertility Rate	65.4	55.9	65.3	72.2	80.1	74.2	71.6	49.8
Birth Rate	15.5	9.8	17.4	14.3	18.4	18.1	11.9	13.2
Sex: Male	34,007**	65	2,049	201	335	257	52	354
Female	32,736**	66	1,955	247	293	259	37	343
Out-of-Wedlock, percent	18.3	22.1	15.2	23.7	38.2	12.6	9.0	17.5
Race: White	60,150**	122	3,869	388	407	512	87	681
Black	2,739	-	27	-	4	-	-	4
Indian	1,538	9	37	59	214	2	2	1
Live Birth Order								
Median	2.4	2.7	2.3	2.5	2.6	2.4	2.5	2.4
% 5th or over	3.9	2.3	2.2	8.3	6.5	4.3	6.7	3.2
Prematurity, Percent								
Less than 37 weeks	6.3	6.1	6.1	7.1	8.8	5.8	6.7	5.5
Less than 2,500 grams	5.0	7.6	5.2	5.1	5.4	4.1	6.7	4.6
Plurality:								
Single	65,211**	128	3,917	438	610	488	83	679
Twin	1,520	3	87	10	18	28	6	18
Triplet	14	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	2.4	5.3	1.4	5.1	4.9	1.7	2.2	1.9
18-19	4.9	5.3	3.8	5.8	9.1	4.5	5.6	4.4
40 and over	1.0	1.5	.7	.9	.8	.8	4.5	.6
Mother's Education, Percent								
Less than 12 years	9.8	20.6	9.1	16.1	20.4	7.4	15.7	7.2
Over 3 years college	21.6	12.2	15.7	10.0	17.2	16.3	7.9	21.5
Prenatal Care Began, Percent								
3rd Trimester or none	4.1	6.9	3.6	3.6	7.2	1.9	3.4	2.2
Prenatal Care Visits								
Median	11.4	10.5	10.9	10.9	10.1	12.2	10.5	12.6
Congenital Anomalies, Percent	1.5	.8	.9	2.5	1.9	1.2	6.7	1.0
High Risk, Percent	22.4	35.1	21.2	25.0	26.3	19.4	23.6	17.4
Other Significant Conditions of Child, Percent	5.2	11.5	4.3	7.1	4.9	4.8	4.5	3.4
Infant Deaths								
Total	521	-	24	8	6	4	-	5
White	432	-	24	7	3	4	-	5
Black	54	-	-	-	-	-	-	-
Indian	16	-	-	1	3	-	-	-
Neonatal Deaths								
Total	316	-	13	1	3	2	-	5
White	263	-	13	1	2	2	-	5
Black	33	-	-	-	-	-	-	-
Indian	8	-	-	-	1	-	-	-
First Day Deaths								
Total	203	-	9	-	3	1	-	2
White	163	-	9	-	2	1	-	2
Black	28	-	-	-	-	-	-	-
Indian	5	-	-	-	1	-	-	-
1-6 Day Deaths								
Total	70	-	1	-	-	1	-	-
White	60	-	1	-	-	1	-	-
Black	5	-	-	-	-	-	-	-
Indian	2	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	43	-	3	1	-	-	-	3
White	40	-	3	1	-	-	-	3
Black	-	-	-	-	-	-	-	-
Indian	1	-	-	-	-	-	-	-
Fetal Deaths								
Total	466	-	23	-	5	2	-	5
White	382	-	22	-	-	2	-	5
Black	35	-	-	-	-	-	-	-
Indian	17	-	-	-	4	-	-	-
Perinatal Rate	11.7	-	9.0	2.2	12.7	7.8	-	14.3
Maternal Deaths	4	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Brown	Carlton	Carver	Cass	Chippewa	Chisago	Clay	Clear-water
Live Births	392	364	832	310	187	462	670	113
Fertility Rate	63.1	63.0	76.1	87.6	71.5	72.9	52.4	70.8
Birth Rate	13.9	12.7	18.7	14.6	13.1	15.5	13.5	12.5
Sex: Male	209	196	447	157	85	236	327	55
Female	183	168	385	153	102	226	343	58
Out-of-Wedlock, Percent	14.3	21.2	10.0	35.2	10.7	16.7	17.9	31.0
Race: White	390	330	819	220	182	445	645	78
Black	-	1	1	2	-	-	4	1
Indian	-	31	6	88	3	9	17	34
Live Birth Order								
Median	2.5	2.5	2.4	2.8	2.5	2.4	2.4	2.8
% 5th or over	3.3	4.7	3.1	10.0	1.6	3.0	3.3	9.7
Prematurity, Percent								
Less than 37 weeks	4.6	9.6	7.2	7.1	4.3	6.9	8.1	8.8
Less than 2,500 grams	5.1	6.6	5.3	8.7	2.7	5.4	4.8	6.2
Plurality:								
Single	380	356	809	300	187	451	640	105
Twin	9	8	23	10	-	11	30	8
Triplet	3	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	1.5	1.9	1.6	4.8	2.1	2.6	2.2	2.7
18-19	4.8	6.0	3.6	7.4	4.3	4.5	5.1	11.5
40 and over	.5	.5	1.0	1.0	1.1	.4	1.0	.9
Mother's Education, Percent								
Less than 12 years	3.1	9.9	6.0	19.7	8.0	9.7	12.5	24.8
Over 3 years college	11.5	12.1	22.8	8.7	15.5	12.6	21.9	9.7
Prenatal Care Began, Percent								
3rd Trimester or none	1.0	3.0	2.2	8.7	2.7	2.2	7.5	5.3
Prenatal Care Visits								
Median	11.2	11.0	12.2	10.2	11.3	11.0	11.0	10.5
Congenital Anomalies, Percent	3.1	1.9	2.3	1.0	3.7	1.5	1.8	.9
High Risk, Percent	29.8	23.4	22.6	29.7	19.8	21.9	14.6	27.4
Other Significant Conditions of Child, Percent	10.7	8.5	4.9	9.0	6.4	5.2	1.0	11.5
Infant Deaths								
Total	3	2	4	7	1	3	9	2
White	3	2	4	5	1	3	9	2
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	2	-	-	-	-
Neonatal Deaths								
Total	3	1	3	3	-	2	2	1
White	3	1	3	2	-	2	2	1
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	1	-	-	-	-
First Day Deaths								
Total	2	1	2	2	-	2	1	1
White	2	1	2	2	-	2	1	1
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
1-6 Day Deaths								
Total	1	-	1	-	-	-	1	-
White	1	-	1	-	-	-	1	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	-	1	-	-	-	-
White	-	-	-	-	-	-	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	1	-	-	-	-
Fetal Deaths								
Total	2	2	6	4	3	7	6	-
White	2	1	5	3	3	5	6	-
Black	-	-	-	-	-	-	-	-
Indian	-	1	-	1	-	-	-	-
Perinatal Rate	12.8	8.2	10.8	22.6	16.0	19.5	11.9	8.8
Maternal Deaths	-	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Cook	Cotton-wood	Crow Wing	Dakota	Dodge	Douglas	Faribault	Fill-more
Live Births	51	131	601	4,677+	209	401	214	294
Fertility Rate	53.8	55.6	69.0	69.6	66.5	64.5	68.1	74.2
Birth Rate	12.0	9.7	13.6	18.5	13.7	13.2	11.8	13.8
Sex: Male	24	73	309	2,423	101	197	106	152
Female	27	58	292	2,253	108	204	108	142
Out-of-Wedlock, Percent	17.6	12.2	23.6	11.0	12.9	13.2	14.5	16.7
Race: White	45	130	589	4,434	206	396	214	290
Black	-	-	3	84	1	-	-	-
Indian	5	-	6	25	2	1	-	1
Live Birth Order								
Median	2.4	2.7	2.4	2.3	2.5	2.5	2.5	2.6
% 5th or over	2.0	1.5	4.0	2.0	1.9	4.7	4.2	9.2
Prematurity, Percent								
Less than 37 weeks	3.9	5.3	7.2	5.6	3.8	4.7	7.9	7.1
Less than 2,500 grams	7.8	3.1	5.8	4.6	3.3	3.2	6.1	3.1
Plurality:								
Single	49	129	586	4,552	207	395	210	294
Twin	2	2	15	125	2	6	4	-
Triplet	-	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	3.9	-	2.8	1.4	3.3	1.7	3.7	1.4
18-19	-	2.3	7.2	2.8	6.7	5.0	4.2	7.5
40 and over	-	-	1.2	.8	1.4	1.0	.9	1.0
Mother's Education, Percent								
Less than 12 years	5.9	6.9	15.0	5.0	12.4	7.7	8.4	13.9
Over 3 years college	19.6	15.3	13.8	27.2	12.0	10.7	11.2	13.6
Prenatal Care Began, Percent								
3rd Trimester or none	3.9	2.3	2.7	3.4	5.7	2.2	.9	6.5
Prenatal Care Visits								
Median	12.0	12.6	11.0	10.8	11.5	11.5	10.8	10.7
Congenital Anomalies, Percent	-	2.3	1.3	1.4	2.4	1.5	2.3	3.1
High Risk, Percent	35.3	25.2	23.3	18.7	25.4	19.2	26.2	28.9
Other Significant Conditions of Child, Percent	17.6	6.9	6.2	3.8	5.3	4.7	7.0	6.1
Infant Deaths								
Total	1	-	4	30	2	1	3	-
White	1	-	4	27	2	1	3	-
Black	-	-	-	1	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Neonatal Deaths								
Total	-	-	3	22	1	-	1	-
White	-	-	3	19	1	-	1	-
Black	-	-	-	1	-	-	-	-
Indian	-	-	-	-	-	-	-	-
First Day Deaths								
Total	-	-	1	13	1	-	-	-
White	-	-	1	11	1	-	-	-
Black	-	-	-	1	-	-	-	-
Indian	-	-	-	-	-	-	-	-
1-6 Day Deaths								
Total	-	-	2	4	-	-	1	-
White	-	-	2	4	-	-	1	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	-	5	-	-	-	-
White	-	-	-	4	-	-	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Fetal Deaths								
Total	-	2	9	27	6	1	1	2
White	-	2	8	23	6	1	1	1
Black	-	-	-	2	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Perinatal Rate	-	15.3	20.0	10.5	33.5	2.5	9.3	6.8
Maternal Deaths	-	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Freeborn	Goodhue	Grant	Hennepin	Minneapolis	Houston	Hubbard
Live Births	477	526	77	16,594	6,481	304	177
Fertility Rate	69.7	63.1	62.4	63.9	69.5	80.9	55.4
Birth Rate	13.8	12.9	11.1	16.8	18.2	15.8	11.3^R
Sex: Male	257	287	37	8,410	3,287	159	91
Female	220	239	40	8,184	3,194	145	86
Out-of-Wedlock, Percent	16.4	11.6	9.1	23.2	40.8	10.2	20.9
Race: White	473	513	77	13,414	3,967	304	162
Black	1	1	-	1,860	1,553	-	-
Indian	1	8	-	511	447	-	13
Live Birth Order							
Median	2.3	2.5	2.9	2.2	2.2	2.4	2.5
% 5th or over	1.9	3.8	3.9	3.2	6.0	3.3	4.5
Prematurity, Percent							
Less than 37 weeks	6.7	5.1	5.2	6.6	8.6	6.3	11.3
Less than 2,500 grams	5.0	4.6	3.9	5.7	7.8	3.6	6.2
Plurality:							
Single	468	514	73	16,180	6,306	298	173
Twin	9	12	4	408	175	6	4
Triplet	-	-	-	6	-	-	-
Mother's Age, Percent							
Under 18	2.3	1.3	1.3	2.6	4.9	3.3	5.1
18-19	6.5	4.9	3.9	4.7	7.7	3.6	13.0
40 and over	.2	.2	1.3	1.2	1.2	.3	1.1
Mother's Education, Percent							
Less than 12 years	10.7	8.7	9.1	11.7	21.4	7.9	12.4
Over 3 years college	11.3	17.5	19.5	29.1	23.9	21.7	10.7
Prenatal Care Began, Percent							
3rd Trimester or none	2.1	3.8	2.6	5.5	9.8	1.0	4.0
Prenatal Care Visits							
Median	10.4	12.1	10.5	11.8	10.8	11.5	9.8
Congenital Anomalies, Percent	1.3	2.1	1.3	1.2	1.7	3.0	.6
High Risk, Percent	22.4	20.0	13.0	24.8	32.2	14.5	22.6
Other Significant Conditions of Child, Percent	4.0	6.1	2.6	5.2	7.0	4.3	5.1
Infant Deaths							
Total	6	3	1	136	73	5	2
White	6	3	1	85	28	4	2
Black	-	-	-	39	36	-	-
Indian	-	-	-	6	5	-	-
Neonatal Deaths							
Total	3	3	1	94	50	2	1
White	3	3	1	62	21	1	1
Black	-	-	-	25	23	-	-
Indian	-	-	-	4	4	-	-
First Day Deaths							
Total	1	2	1	64	38	1	-
White	1	2	1	38	15	1	-
Black	-	-	-	21	19	-	-
Indian	-	-	-	2	2	-	-
1-6 Day Deaths							
Total	1	1	-	17	10	1	1
White	1	1	-	11	4	-	1
Black	-	-	-	4	4	-	-
Indian	-	-	-	2	2	-	-
7-27 Day Deaths							
Total	1	-	-	13	2	-	-
White	1	-	-	13	2	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Fetal Deaths							
Total	4	5	-	109	55	2	1
White	4	4	-	68	17	2	-
Black	-	-	-	27	25	-	-
Indian	-	-	-	10	10	-	1
Perinatal Rate	14.7	15.2	13.0	12.2	16.2	13.2	11.3
Maternal Deaths	-	-	-	1	1	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Isanti	Itasca	Jackson	Kanabec	Kandiyohi	Kittson	Koochiching
Live Births	387	528	170	155	603	70	163
Fertility Rate	58.8	59.9	69.9	58.8	64.3	56.6	51.4
Birth Rate	14.3	12.3	13.2	11.9	14.9	10.8	10.4
Sex: Male	200	280	88	79	289	38	84
Female	187	248	82	76	314	32	79
Out-of-Wedlock, Percent	18.1	28.8	11.2	25.2	15.8	15.7	32.5
Race: White	385	464	158	151	595	69	150
Black	-	2	-	-	1	-	1
Indian	1	61	-	3	4	-	10
Live Birth Order							
Median	2.5	2.5	2.6	2.4	2.5	2.6	2.3
% 5th or over	4.1	5.5	2.9	1.3	4.0	1.4	4.9
Prematurity, Percent							
Less than 37 weeks	5.7	5.5	4.1	7.7	6.8	4.3	4.3
Less than 2,500 grams	4.7	4.9	2.4	4.5	4.3	1.4	6.7
Plurality:							
Single	383	516	164	154	590	68	163
Twin	4	12	6	1	11	2	-
Triplet	-	-	-	-	2	-	-
Mother's Age, Percent							
Under 18	2.6	4.0	2.4	4.5	2.3	4.3	4.3
18-19	6.7	9.3	5.3	11.6	7.8	2.9	11.7
40 and over	.5	1.5	1.8	-	.5	-	-
Mother's Education, Percent							
Less than 12 years	13.7	12.3	8.2	25.2	11.1	10.0	15.3
Over 3 years college	16.8	11.6	14.1	11.0	13.9	22.9	11.7
Prenatal Care Began, Percent							
3rd Trimester or none	3.4	2.1	5.9	3.2	3.2	7.1	-
Prenatal Care Visits							
Median	11.7	10.7	12.6	10.8	11.2	10.3	9.3
Congenital Anomalies, Percent	2.8	2.5	1.8	3.2	1.7	2.9	1.8
High Risk, Percent	25.8	27.7	18.8	29.7	17.2	12.9	25.2
Other Significant Conditions of Child, Percent	5.9	10.0	5.9	11.0	8.0	2.9	9.8
Infant Deaths							
Total	3	5	-	1	2	2	-
White	3	5	-	1	2	2	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Neonatal Deaths							
Total	2	4	-	1	1	2	-
White	2	4	-	1	1	2	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
First Day Deaths							
Total	1	4	-	1	1	-	-
White	1	4	-	1	1	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
1-6 Day Deaths							
Total	1	-	-	-	-	1	-
White	1	-	-	-	-	1	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
7-27 Day Deaths							
Total	-	-	-	-	-	1	-
White	-	-	-	-	-	1	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Fetal Deaths							
Total	1	2	2	4	2	2	-
White	1	2	1	4	2	1	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Perinatal Rate	7.8	11.4	11.8	32.3	5.0	57.1	-
Maternal Deaths	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Lac Qui Parle	Lake	Lake of the Woods	LeSueur	Lincoln	Lyon	McLeod	Mahnomen
Live Births	112	114	64	335	76	341	472	62
Fertility Rate	67.8	55.4	85.9	74.1	61.3	59.7	71.0	64.7
Birth Rate	11.4	10.3	16.2	14.2	9.9	13.3	15.3	11.1
Sex: Male	59	58	33	159	39	177	256	36
Female	53	56	31	176	37	164	216	26
Out-of-Wedlock, Percent	11.6	10.5	9.4	13.7	11.8	11.4	12.5	25.8
Race: White	112	112	63	331	76	337	468	39
Black	-	-	-	-	-	2	1	-
Indian	-	2	-	2	-	1	1	23
Live Birth Order								
Median	2.6	2.5	2.7	2.6	2.7	2.3	2.5	2.7
% 5th or over	4.5	1.8	3.1	6.3	7.9	3.2	3.0	8.1
Prematurity, Percent								
Less than 37 weeks	8.0	5.3	7.8	6.9	9.2	6.5	6.1	4.8
Less than 2,500 grams	4.5	3.5	4.7	4.8	5.3	5.0	4.4	3.2
Plurality:								
Single	108	112	62	325	72	336	454	62
Twin	4	2	2	10	4	5	18	-
Triplet	-	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	1.8	.9	3.1	.3	2.6	2.1	1.7	4.8
18-19	8.9	7.0	4.7	6.9	6.6	3.8	5.9	8.1
40 and over	-	3.5	1.6	.6	-	-	.4	1.6
Mother's Education, Percent								
Less than 12 years	6.3	1.8	4.7	7.2	7.9	4.7	5.7	22.6
Over 3 years college	17.0	13.2	12.5	11.3	13.2	22.6	14.0	12.9
Prenatal Care Began, Percent								
3rd Trimester or none	1.8	2.6	4.7	.3	5.3	4.1	1.7	4.8
Prenatal Care Visits								
Median	10.3	11.8	11.0	12.1	10.5	12.3	11.9	10.5
Congenital Anomalies, Percent	.9	.9	3.1	1.5	3.9	1.2	1.3	3.2
High Risk, Percent	23.2	21.9	25.0	16.4	26.3	20.5	19.9	22.6
Other Significant Conditions of Child, Percent	8.0	5.3	7.8	5.1	14.5	9.4	5.9	8.1
Infant Deaths								
Total	-	1	-	2	2	1	3	1
White	-	1	-	2	2	1	3	1
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Neonatal Deaths								
Total	-	1	-	1	1	-	2	-
White	-	1	-	1	1	-	2	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
First Day Deaths								
Total	-	1	-	1	1	-	2	-
White	-	1	-	1	1	-	2	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
1-6 Day Deaths								
Total	-	-	-	-	-	-	-	-
White	-	-	-	-	-	-	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	-	-	-	-	-	-
White	-	-	-	-	-	-	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Fetal Deaths								
Total	-	4	-	1	1	1	4	-
White	-	4	-	1	1	1	4	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Perinatal Rate	-	43.9	-	6.0	26.3	2.9	12.7	-
Maternal Deaths	-	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Marshall	Martin	Meeker	Mille Lacs	Morrison	Mower	Murray
Live Births	132	263	319	270	464	453	126
Fertility Rate	58.6	59.7	80.3	75.7	78.0	64.6	69.3
Birth Rate	10.7	11.1	15.1	14.2	15.2	11.7	11.9
Sex: Male	68	139	154	141	252	231	62
Female	64	124	165	129	212	222	64
Out-of-Wedlock, Percent	11.4	13.3	12.2	28.9	17.9	19.0	7.9
Race: White	131	260	317	247	462	447	125
Black	-	-	-	-	-	1	-
Indian	1	-	1	22	2	-	-
Live Birth Order							
Median	2.4	2.4	2.6	2.4	2.7	2.4	2.7
% 5th or over	2.3	2.3	7.5	5.2	7.5	5.3	6.3
Prematurity, Percent							
Less than 37 weeks	4.5	9.1	5.3	7.0	4.7	7.1	5.6
Less than 2,500 grams	3.8	5.3	3.4	4.4	5.0	5.1	3.2
Plurality:							
Single	132	261	313	260	452	444	122
Twin	-	2	6	10	12	9	4
Triplet	-	-	-	-	-	-	-
Mother's Age, Percent							
Under 18	2.3	2.7	2.5	5.2	2.6	2.6	.8
18-19	5.3	2.3	4.4	5.2	7.1	5.7	7.1
40 and over	.8	1.1	1.3	1.9	.6	.4	-
Mother's Education, Percent							
Less than 12 years	4.5	7.6	9.7	14.1	9.3	8.2	4.0
Over 3 years college	18.9	15.2	10.0	7.8	8.6	14.1	21.4
Prenatal Care Began, Percent							
3rd Trimester or none	3.8	2.3	1.6	4.4	1.3	5.7	2.4
Prenatal Care Visits							
Median	10.7	11.2	11.0	11.0	12.1	10.6	11.6
Congenital Anomalies, Percent	3.8	2.3	2.5	3.0	1.9	2.4	2.4
High Risk, Percent	19.7	19.0	24.1	32.6	18.1	26.3	13.5
Other Significant Conditions of Child, Percent	5.3	6.1	8.2	9.6	3.7	8.6	4.0
Infant Deaths							
Total	2	4	4	1	3	4	1
White	2	4	4	-	3	4	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	1	-	-	-
Neonatal Deaths							
Total	2	2	1	-	1	2	1
White	2	2	1	-	1	2	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
First Day Deaths							
Total	1	1	-	-	1	1	1
White	1	1	-	-	1	1	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
1-6 Day Deaths							
Total	1	-	1	-	-	1	-
White	1	-	1	-	-	1	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
7-27 Day Deaths							
Total	-	1	-	-	-	-	-
White	-	1	-	-	-	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Fetal Deaths							
Total	1	4	1	1	8	2	-
White	1	4	1	1	7	2	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Perinatal Rate	22.7	22.8	6.3	3.7	19.4	8.8	7.9
Maternal Deaths	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Nicollet	Nobles	Norman	Olmsted	Ottertail	Penn-ington	Pine
Live Births	392	269	110	1,886	686	171	261
Fertility Rate	55.5	62.4	71.2	67.5	64.5	58.7	65.4
Birth Rate	13.6	12.6	12.4	18.5	12.4	12.6	12.2
Sex: Male	199	141	65	917	355	95	147
Female	193	128	45	969	331	76	114
Out-of-Wedlock, Percent	11.5	13.4	10.9	10.7	12.4	24.0	19.2
Race: White	391	256	108	1,770	677	169	250
Black	-	1	-	14	-	-	1
Indian	-	1	2	7	5	1	8
Live Birth Order							
Median	2.4	2.4	2.8	2.3	2.6	2.4	2.6
% 5th or over	2.3	2.2	9.1	3.2	6.4	4.7	6.5
Prematurity, Percent							
Less than 37 weeks	7.4	8.9	2.7	5.6	3.2	8.8	5.0
Less than 2,500 grams	4.3	3.0	2.7	4.2	3.4	4.7	5.0
Plurality:							
Single	386	267	110	1,853	670	169	253
Twin	6	2	-	33	16	2	8
Triplet	-	-	-	-	-	-	-
Mother's Age, Percent							
Under 18	1.3	2.6	1.8	1.2	2.0	1.2	2.3
18-19	3.6	6.3	4.5	3.3	5.0	11.7	10.0
40 and over	2.0	.7	.9	1.1	.7	-	1.1
Mother's Education, Percent							
Less than 12 years	6.1	7.1	4.5	6.3	9.0	8.8	16.1
Over 3 years college	27.3	11.2	20.0	33.4	15.5	13.5	11.9
Prenatal Care Began, Percent							
3rd Trimester or none	1.5	3.3	4.5	2.7	3.8	9.9	6.5
Prenatal Care Visits							
Median	12.3	12.9	10.8	11.5	11.3	10.5	10.5
Congenital Anomalies, Percent	.5	2.2	1.8	1.6	1.7	1.2	2.7
High Risk, Percent	20.9	17.1	16.4	27.1	18.5	17.5	23.8
Other Significant Conditions of Child, Percent	6.4	2.6	4.5	6.7	5.0	2.9	5.4
Infant Deaths							
Total	1	-	2	8	10	1	3
White	1	-	2	7	9	1	3
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	1	-	-
Neonatal Deaths							
Total	1	-	1	6	6	-	1
White	1	-	1	5	5	-	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	1	-	-
First Day Deaths							
Total	1	-	1	2	4	-	1
White	1	-	1	2	3	-	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	1	-	-
1-6 Day Deaths							
Total	-	-	-	2	2	-	-
White	-	-	-	1	2	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
7-27 Day Deaths							
Total	-	-	-	2	-	-	-
White	-	-	-	2	-	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Fetal Deaths							
Total	1	2	1	9	5	-	-
White	1	1	1	9	5	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Perinatal Rate	5.1	7.4	18.2	8.0	16.0	-	3.8
Maternal Deaths	-	-	-	1	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Pipe-stone	Polk	Pope	Ramsey	St. Paul	Red Lake	Red-Wood	Renville
Live Births	186	502	133	8,276⁺	5,126	54	206	216
Fertility Rate	94.6	74.8	68.6	70.5	80.6	59.5	62.9	63.3
Birth Rate	16.9	14.9	11.4	17.5	19.3	10.9	11.3	11.4
Sex: Male	99	241	73	4,249	2,599	29	97	104
Female	87	261	60	4,026	2,527	25	109	112
Out-of-Wedlock, Percent	16.1	20.9	13.5	23.2	29.6	14.8	10.2	10.6
Race: White	174	479	132	6,559	3,651	54	198	212
Black	-	-	-	640	566	-	2	-
Indian	9	21	1	117	94	-	6	3
Live Birth Order								
Median	2.5	2.6	2.6	2.3	2.4	2.9	2.7	2.5
% 5th or over	6.5	5.8	5.3	5.9	8.5	3.7	3.9	2.3
Prematurity, Percent								
Less than 37 weeks	10.2	7.4	6.0	6.1	6.9	1.9	7.3	6.5
Less than 2,500 grams	5.4	4.8	8.3	5.4	6.4	1.9	5.3	4.6
Plurality:								
Single	174	478	131	8,116	5,024	52	202	216
Twin	12	24	2	160	102	2	4	-
Triplet	-	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	4.8	2.8	-	3.6	4.9	-	.5	2.3
18-19	8.6	6.2	7.5	5.3	6.7	5.6	2.9	5.6
40 and over	.5	1.4	2.3	1.2	1.6	1.9	.5	-
Mother's Education, Percent								
Less than 12 years	10.8	14.7	5.3	12.5	17.3	3.7	3.9	6.9
Over 3 years college	15.1	13.3	10.5	25.8	21.3	18.5	15.5	14.4
Prenatal Care Began, Percent								
3rd Trimester or none	3.2	4.2	6.0	5.6	7.5	3.7	2.9	2.8
Prenatal Care Visits								
Median	12.3	11.1	10.5	11.2	10.8	10.3	11.4	11.7
Congenital Anomalies, Percent	1.1	2.0	1.5	1.1	1.2	1.9	1.0	3.2
High Risk, Percent	24.2	16.9	19.5	23.7	27.0	16.7	19.9	24.1
Other Significant Conditions of Child, Percent	8.6	3.6	5.3	3.9	4.3	1.9	6.8	6.9
Infant Deaths								
Total	2	4	1	73	53	-	4	1
White	2	4	1	51	33	-	4	1
Black	-	-	-	14	12	-	-	-
Indian	-	-	-	1	1	-	-	-
Neonatal Deaths								
Total	-	2	1	39	31	-	4	-
White	-	2	1	28	20	-	4	-
Black	-	-	-	7	7	-	-	-
Indian	-	-	-	1	1	-	-	-
First Day Deaths								
Total	-	-	1	25	19	-	3	-
White	-	-	1	16	10	-	3	-
Black	-	-	-	6	6	-	-	-
Indian	-	-	-	1	1	-	-	-
1-6 Day Deaths								
Total	-	2	-	10	8	-	1	-
White	-	2	-	9	7	-	1	-
Black	-	-	-	1	1	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	-	4	4	-	-	-
White	-	-	-	3	3	-	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Fetal Deaths								
Total	-	4	1	53	36	-	2	2
White	-	4	1	41	25	-	2	2
Black	-	-	-	3	3	-	-	-
Indian	-	-	-	-	-	-	-	-
Perinatal Rate	-	12.0	15.0	11.1	13.1	-	29.1	9.3
Maternal Deaths	-	-	-	1	1	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Rice	Rock	Roseau	St. Louis	Duluth	Scott	Sher-burne	Sibley
Live Births	624	120	266	2,299	1,198	1,046	624	201
Fertility Rate	51.6	58.5	91.6	52.8	63.2	75.8	67.2	71.3
Birth Rate	12.9	11.6	18.2	11.5	14.5	18.8	16.3	13.1
Sex: Male	305	71	133	1,150	599	547	323	101
Female	319	49	133	1,149	599	499	301	100
Out-of-Wedlock, Percent	16.0	5.8	12.0	23.7	26.7	11.5	12.7	9.5
Race: White	612	119	253	2,161	1,103	1,017	617	201
Black	3	-	-	33	27	4	2	-
Indian	3	-	9	82	50	14	2	-
Live Birth Order								
Median	2.4	2.5	2.5	2.3	2.3	2.4	2.5	2.5
% 5th or over	3.7	2.5	4.5	3.6	3.4	2.4	4.3	4.5
Prematurity, Percent								
Less than 37 weeks	6.4	3.3	5.6	7.7	7.5	5.2	5.3	2.5
Less than 2,500 grams	4.3	3.3	2.6	5.2	5.4	5.0	3.0	4.0
Plurality:								
Single	618	118	266	2,246	1,179	1,024	615	193
Twin	6	2	-	53	19	22	9	8
Triplet	-	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	2.2	.8	2.3	3.0	3.3	1.4	1.3	.5
18-19	6.3	4.2	4.5	5.4	5.8	3.3	5.0	4.5
40 and over	.3	-	.8	1.1	.9	.7	.6	.5
Mother's Education, Percent								
Less than 12 years	9.3	4.2	7.1	10.0	12.9	6.5	7.1	4.5
Over 3 years college	17.9	14.2	14.7	18.2	22.1	18.9	14.9	6.0
Prenatal Care Began, Percent								
3rd Trimester or none	2.4	2.5	1.5	3.2	2.5	2.6	3.2	1.5
Prenatal Care Visits								
Median	11.9	12.5	11.2	11.4	11.4	11.7	11.6	12.1
Congenital Anomalies, Percent	1.8	.8	2.6	1.2	1.4	1.5	1.6	4.0
High Risk, Percent	23.4	16.7	19.5	22.5	21.7	19.0	18.8	23.9
Other Significant Conditions of Child, Percent	7.7	5.0	5.3	6.9	6.9	4.3	4.6	9.0
Infant Deaths								
Total	4	-	2	19	10	8	5	4
White	4	-	2	18	9	8	5	4
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	1	1	-	-	-
Neonatal Deaths								
Total	2	-	1	11	5	5	5	4
White	2	-	1	11	5	5	5	4
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
First Day Deaths								
Total	2	-	1	7	4	2	3	4
White	2	-	1	7	4	2	3	4
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
1-6 Day Deaths								
Total	-	-	-	3	-	1	2	-
White	-	-	-	3	-	1	2	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	-	1	1	2	-	-
White	-	-	-	1	1	2	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Fetal Deaths								
Total	7	-	3	12	6	8	8	1
White	7	-	3	10	6	7	7	1
Black	-	-	-	2	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Perinatal Rate	14.4	-	15.0	10.0	9.2	12.4	20.8	24.9
Maternal Deaths	-	-	1	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Stearns	Steele	Stevens	Swift	Todd	Traverse	Wabasha
Live Births	1,740	466	118	136	331	62	300
Fertility Rate	60.3	68.5	52.0	65.9	70.1	74.3	80.9
Birth Rate	14.6	15.0	10.7	11.2	13.1	12.5	15.5
Sex: Male	878	213	63	72	139	28	153
Female	862	253	55	64	192	34	147
Out-of-Wedlock, Percent	13.9	12.0	5.9	9.6	11.8	21.0	9.0
Race: White	1,716	458	112	136	330	57	296
Black	6	1	-	-	1	-	-
Indian	4	1	2	-	-	5	1
Live Birth Order							
Median	2.4	2.3	2.7	2.4	2.6	2.6	2.7
% 5th or over	4.9	3.9	2.5	2.2	6.0	4.8	3.0
Prematurity, Percent							
Less than 37 weeks	6.6	4.3	3.4	2.2	6.9	1.6	5.0
Less than 2,500 grams	4.0	2.8	2.5	4.4	4.8	4.8	3.0
Plurality:							
Single	1,695	462	116	136	324	58	290
Twin	42	4	2	-	7	4	10
Triplet	3	-	-	-	-	-	-
Mother's Age, Percent							
Under 18	.9	1.7	-	1.5	4.2	1.6	2.0
18-19	5.2	7.7	2.5	3.7	4.8	6.5	3.3
40 and over	1.0	1.1	-	1.5	1.5	1.6	1.0
Mother's Education, Percent							
Less than 12 years	5.2	9.0	-	7.4	9.1	8.1	6.3
Over 3 years college	15.6	12.4	8.5	12.5	10.3	6.5	15.7
Prenatal Care Began, Percent							
3rd Trimester or none	1.2	4.3	1.7	.7	3.9	1.6	3.3
Prenatal Care Visits							
Median	12.2	10.9	11.6	11.8	11.2	10.6	10.7
Congenital Anomalies, Percent	1.1	1.7	1.7	3.7	2.7	1.6	2.7
High Risk, Percent	19.7	21.7	9.3	20.6	19.6	16.1	26.0
Other Significant Conditions of Child, Percent	4.7	8.8	1.7	8.1	4.5	6.5	4.3
Infant Deaths							
Total	11	1	-	2	4	-	2
White	11	1	-	2	3	-	2
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Neonatal Deaths							
Total	6	-	-	-	4	-	1
White	6	-	-	-	3	-	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
First Day Deaths							
Total	3	-	-	-	4	-	-
White	3	-	-	-	3	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
1-6 Day Deaths							
Total	2	-	-	-	-	-	-
White	2	-	-	-	-	-	-
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
7-27 Day Deaths							
Total	1	-	-	-	-	-	1
White	1	-	-	-	-	-	1
Black	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-
Fetal Deaths							
Total	11	6	-	1	11	-	3
White	11	5	-	1	10	-	3
Black	-	-	-	-	1	-	-
Indian	-	-	-	-	-	-	-
Perinatal Rate	9.8	12.9	-	7.4	45.3	-	13.3
Maternal Deaths	-	-	-	-	-	-	-

Table 9
SELECTED RESIDENT NATALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988 (CONT.)

	Wadena	Waseca	Washington	Watonwan	Wilkin	Winona	Wright	Yellow Medicine
Live Births	176	239	2,127	164	102	629	1,214	153
Fertility Rate	68.4	59.7	60.3	78.1	69.2	52.6	77.3	70.8
Birth Rate	12.8	12.7	15.5	14.3	12.7	13.3	18.0	12.3
Sex: Male	91	136	1,075	85	48	326	600	85
Female	85	103	1,052	79	54	303	614	68
Out-of-Wedlock, Percent	18.8	16.7	14.5	14.0	20.6	14.3	13.6	7.8
Race: White	175	236	2,066	162	98	619	1,205	151
Black	-	2	23	-	-	1	3	-
Indian	1	-	5	-	4	2	1	2
Live Birth Order								
Median	2.5	2.5	2.3	2.6	2.4	2.5	2.5	2.7
% 5th or over	4.5	2.5	2.4	4.9	2.0	5.4	5.9	6.5
Prematurity, Percent								
Less than 37 weeks	5.7	7.1	5.2	9.1	13.7	7.2	7.1	3.9
Less than 2,500 grams	8.5	3.3	3.8	5.5	8.8	4.8	5.4	2.0
Plurality:								
Single	173	233	2,096	162	100	617	1,186	149
Twin	3	6	31	2	2	12	28	4
Triplet	-	-	-	-	-	-	-	-
Mother's Age, Percent								
Under 18	3.4	2.1	1.8	.6	2.0	2.5	1.8	2.6
18-19	7.4	5.4	3.8	3.7	4.9	5.4	4.0	2.6
40 and over	-	.4	.8	-	1.0	1.1	.7	.7
Mother's Education, Percent								
Less than 12 years	10.2	6.7	5.1	11.0	9.8	11.6	6.8	4.6
Over 3 years college	9.7	16.7	24.4	12.8	14.7	16.5	10.5	18.3
Prenatal Care Began, Percent								
3rd Trimester or none	5.1	.4	2.4	3.0	4.9	3.7	3.9	1.3
Prenatal Care Visits								
Median	10.7	12.1	11.6	12.2	11.8	11.5	11.7	11.1
Congenital Anomalies, Percent	.6	.8	1.3	1.8	2.0	2.2	1.5	4.6
High Risk, Percent	25.6	15.1	19.3	20.7	32.4	17.8	21.6	21.6
Other Significant Conditions of Child, Percent	8.5	4.2	3.8	5.5	6.9	5.4	4.2	6.5
Infant Deaths								
Total	2	-	15	1	-	6	10	1
White	2	-	14	1	-	6	10	1
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Neonatal Deaths								
Total	1	-	11	1	-	3	6	-
White	1	-	10	1	-	3	6	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
First Day Deaths								
Total	1	-	3	1	-	2	5	-
White	1	-	3	1	-	2	5	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
1-6 Day Deaths								
Total	-	-	6	-	-	1	-	-
White	-	-	5	-	-	1	-	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
7-27 Day Deaths								
Total	-	-	2	-	-	-	1	-
White	-	-	2	-	-	-	1	-
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Fetal Deaths								
Total	3	3	12	3	2	5	10	2
White	3	3	10	3	2	5	10	2
Black	-	-	-	-	-	-	-	-
Indian	-	-	-	-	-	-	-	-
Perinatal Rate	22.7	12.6	10.8	24.4	19.6	12.7	13.2	13.1
Maternal Deaths	-	-	-	-	-	-	-	-

---

* Includes unknown county of residence and unknown sex.

** Includes unknown county of residence.

+ Includes unknown sex.

Table 10
LIVE BIRTH WEIGHT BY LIVE BIRTH ORDER AND SEX
MINNESOTA RESIDENTS, 1988

Live Birth Order	Total Births	Weight in Grams 999 or Less	1,000 to 1,499	1,500 to 1,999	2,000 to 2,499	2,500 to 2,999	3,000 to 3,499	3,500 to 3,999	4,000 to 4,499	4,500 and Over	Weight Not Stated
First	25,168	127	107	260	846	3,763	9,328	7,984	2,309	425	19
Second	22,546	78	100	177	655	2,559	7,780	7,837	2,802	539	19
Third	11,707	39	54	112	338	1,330	3,734	4,056	1,659	377	8
Fourth	4,241	21	22	48	158	514	1,342	1,419	558	155	4
Fifth	1,407	6	11	16	46	182	441	450	191	63	1
Sixth	570	3	4	8	24	82	173	168	84	23	1
Seventh	281	2	1	3	14	49	91	88	24	9	-
Eight or Over	341	3	2	-	11	50	103	115	47	9	1
Not Stated	484	5	2	5	20	65	177	150	43	9	8
TOTAL	66,745*	284	303	629	2,112	8,594*	23,169	22,267	7,717	1,609	61
Male	34,007	143	140	306	942	3,736	10,801	11,982	4,814	1,109	34
Female	32,736	141	163	323	1,170	4,856	12,368	10,285	2,903	500	27

* Includes Unknown Sex

Table 11
LIVE BIRTHS BY AGE OF MOTHER AND LIVE BIRTH ORDER
MINNESOTA RESIDENTS, 1988

		Age of Mother								
Live Birth Order	Total Births	Under 15 Years	15-19 Years	20-24 Years	25-29 Years	30-34 Years	35-39 Years	40-44 Years	45 & Over Years	Age Not Stated
First	25,168	58	3,798	7,774	8,949	3,654	841	81	-	13
Second	22,546	4	767	5,401	9,149	5,654	1,460	105	4	2
Third	11,707	-	159	1,757	4,619	3,861	1,184	121	6	-
Fourth	4,241	-	20	505	1,404	1,589	636	82	4	1
Fifth	1,407		3	121	390	519	306	60	8	-
Sixth	570	-	3	27	154	205	146	34	1	-
Seventh	281	-	-	5	53	101	84	32	5	1
Eight or Over	341	-	-	4	23	100	128	75	11	-
Not Stated	484	1	43	116	152	120	37	11	2	2
TOTAL	66,745	63	4,793	15,710	24,893	15,803	4,822	601	41	19
Percent	100.0	0.1	7.2	23.5	37.3	23.7	7.2	0.9	0.1	0.0

Table 12
PRENATAL CARE AND RACE BY AGE OF MOTHER AND BY LEGITIMACY STATUS
MINNESOTA RESIDENTS, 1988

	Total	Percent	Age of Mother					
			Under 15	15-19	20-29	30-39	40 and Over	Unknown
Legitimate Live Births	54,511	-	5	1,151	33,569	19,192	582	12
Prenatal Care Started								
1st Trimester	42,104	77.2	-	678	25,979	15,074	363	10
2nd Trimester	6,276	11.5	2	286	3,908	1,965	114	1
3rd Trimester	1,080	2.0	1	71	663	316	28	1
No Care	335	0.6	-	7	185	134	9	-
Unknown	4,716	8.7	2	109	2,834	1,703	68	-
Race								
White	51,233	94.0	2	973	31,678	18,072	501	7
Black	868	1.6	1	26	517	314	10	-
Indian	480	0.9	-	21	326	129	3	1
Out-of-Wedlock Live Births	12,234	-	58	3,642	7,034	1,433	60	7
Prenatal Care Started								
1st Trimester	6,151	50.3	18	1,741	3,584	768	39	1
2nd Trimester	3,293	26.9	20	1,098	1,821	342	11	1
3rd Trimester	966	7.9	11	281	582	88	3	1
No Care	333	2.7	2	96	188	45	1	1
Unknown	1,491	12.2	7	426	859	190	6	3
Race								
White	8,917	72.9	27	2,648	5,167	1,030	43	2
Black	1,871	15.3	19	548	1,081	215	7	1
Indian	1,058	8.6	7	292	619	137	2	1
Legitimate Fetal Deaths	354	-	-	9	208	128	8	1
Race								
White	319	90.1	-	7	188	116	8	-
Black	10	2.8	-	1	4	5	-	-
Indian	3	0.8	-	-	3	-	-	-
Out-of-Wedlock Fetal Deaths	112	-	1	38	49	18	2	4
Race								
White	63	56.3	-	25	25	10	1	2
Black	25	22.3	1	7	12	3	-	2
Indian	14	12.5	-	5	6	2	1	-

Reported Induced Abortions

Table 13
TOTAL REPORTED AND RESIDENT INDUCED ABORTIONS
MINNESOTA, 1973-1988

Year	Total Reported Abortions	Minnesota Resident Abortions	Resident Percent	Resident Abortion Rate
1973[1]	7,263	4,169	57.4	5.1
1974[1]	8,732	7,154	81.9	8.6
1975	10,565	8,924	84.5	10.3
1976	14,124	11,109	78.7	12.5
1977	15,532	13,036	83.9	14.4
1978	17,262	14,521	84.1	15.6
1979	18,672	15,647	83.8	16.4
1980	19,028	16,490	86.7	17.2
1981	18,304	15,821	86.4	16.3
1982	17,758	15,559	87.6	15.8
1983	16,428	14,514	88.3	14.7
1984	17,314	15,556	89.8	15.7
1985	17,686	16,002	90.5	16.1
1986	17,383	15,716	90.4	15.8
1987	17,653	15,746	89.2	15.7
1988	17,975	16,124	89.7	15.8

[1] Data obtained from the Center for Disease Control

Table 14
REPORTED INDUCED ABORTIONS
SELECTED SURVEILLANCE RESULTS AND COMPARISONS
MINNESOTA, 1984-1988

Reported Induced Abortions[1]	1988	1987	1986	1985	1984	Percent Change 1987-1988	Percent Change 1984-1988
Total Reported Abortions	17,975	17,653	17,383	17,686	17,314	+ 1.8	+ 3.8
Minnesota Resident Abortions	16,124	15,746	15,716	16,002	15,556	+ 2.4	+ 3.7
Gestational Age[1]							
Proportion <9 weeks	52.2%	49.9%	49.1%	46.7%	45.6%	+ 4.6	+14.5
Proportion <13 weeks	88.0%	89.0%	87.6%	87.6%	86.5%	- 1.1	+ 1.7
Proportion ≥16 weeks	5.0%	5.5%	6.2%	5.9%	6.1%	- 9.1	-18.0
Client's Age[1]							
Proportion <Age 18	10.0%	10.5%	9.8%	9.8%	9.0%	- 4.8	+11.1
Proportion <Age 20	25.3%	25.1%	24.9%	25.6%	25.6%	+ 0.8	- 1.2
Proportion Age 20-34	66.7%	68.0%	68.3%	68.3%	68.9%	- 1.9	- 3.2
Proportion ≥Age 35	7.3%	6.7%	6.6%	6.0%	5.5%	+ 9.0	+32.7
Contraception[1]							
Proportion "Never Used"	7.3%	9.7%	10.8%	14.1%	15.3%	-24.7	-52.3
Proportion "Used in Past but Not Now"[2]	66.4%	61.1%	58.3%	54.3%	56.1%	+ 8.7	+18.4
Proportion "Was Using at Conception"	24.9%	26.7%	28.4%	28.5%	25.5%	- 6.7	- 2.4
Complications[1]							
Total per 1,000 Procedures	8.90	9.35	8.51	9.27	9.99	- 4.8	-10.9
Resident per 1,000 Procedures	9.43	9.84	9.23	10.06	10.48	- 4.2	-10.0
Resident - Suction Curettage	9.26	10.01	9.43	10.35	10.78	- 7.5	-14.1
Resident - All Other Methods	12.01	7.55	6.93	6.81	7.37	+59.1	+63.0

---

[1] Note: All data are Minnesota resident abortion statistics unless "Total" is indicated.

[2] Combines categories "Have Used but Discontinued" and "Interrupted Use of Usual Method," which were reported separately in years prior to 1985.

Table 15
REPORTED INDUCED ABORTIONS
BY RACE/ETHNIC GROUP AND RESIDENCE
MINNESOTA, 1988

	Total Reported Abortions		Minnesota Resident Abortions		
Race	Number	Percent	Number	Percent	Resident Percent
White	15,480	86.1	13,757	85.3	88.9
Black	1,103	6.1	1,085	6.7	98.4
Indian	183	1.0	155	1.0	84.7
Hispanic	136	0.8	128	0.8	94.1
Asian	521	2.9	504	3.1	96.7
Other	95	0.5	87	0.5	91.6
Unknown	457	2.5	408	2.5	89.3
Total	17,975	100.0	16,124	100.0	89.7

Table 16
REPORTED RESIDENT INDUCED ABORTIONS BY RACE AND AGE GROUP
MINNESOTA, 1988

	Race			
Age Group	White	Non-White	Unknown[1]	Total
TOTAL	13,757	1,959	408	16,124
<15	54	23	2	79
15-17	1,303	191	33	1,527
18-19	2,159	265	52	2,476
20-24	4,653	587	142	5,382
25-29	2,927	473	90	3,490
30-34	1,565	261	62	1,888
35+	1,004	146	20	1,170
Unknown	92	13	7	112

---

[1] Includes Hispanic origin

Table 17
REPORTED RESIDENT INDUCED ABORTIONS BY AGE GROUP AND MARITAL STATUS
MINNESOTA, 1988

		Marital Status		
Age Group	Reported Resident Abortions	Never Married	Currently Married	Other[1] and Unknown
TOTAL	16,124	11,218	2,323	2,583
<18	1,606	1,578	11	17
18-19	2,476	2,380	50	46
20-24	5,382	4,417	482	483
25-29	3,490	1,902	710	878
30-34	1,888	636	574	678
35+	1,170	235	480	455
Unknown	112	70	16	26

---

[1] Other includes: Divorced, Separated, and Widowed

Table 18
REPORTED INDUCED ABORTIONS BY GESTATION AND RESIDENCE MINNESOTA, 1988

Weeks of Gestation[1] (Post LMP)	Total Reported Abortions		Minnesota Resident Abortions		Resident Percent
	Number	Percent	Number	Percent	
TOTAL	17,975	100.0	16,124	100.0	89.7
<9	9,242	51.4	8,422	52.2	91.1
9-10	4,175	23.2	3,769	23.4	90.3
11-12	2,256	12.6	2,003	12.4	88.8
13-15	1,259	7.0	1,096	6.8	87.1
16-20	853	4.7	689	4.3	80.8
21+	162	0.9	121	0.8	74.7
Unknown	28	0.2	24	0.1	85.7

[1] Weeks of gestation as reported by the physician using uterine size and/or LMP indicated by the patient.

Table 19
REPORTED RESIDENT INDUCED ABORTIONS BY AGE GROUP BY WEEKS OF GESTATION
MINNESOTA, 1988

Age Group	Reported Resident Abortions	Gestation in Weeks[1] (LMP)						
		<9	9-10	11-12	13-15	16-20	21+	Unknown
TOTAL	16,124	8,422	3,769	2,003	1,096	689	121	24
<18	1,606	683	352	262	153	128	25	3
18-19	2,476	1,171	558	355	220	142	27	3
20-24	5,382	2,773	1,291	671	384	216	39	8
25-29	3,490	1,945	823	397	201	104	15	5
30-34	1,888	1,113	439	183	87	58	4	4
35+	1,170	681	278	120	46	37	7	1
Unknown	112	56	28	15	5	4	4	0

[1] Weeks of gestation as reported by the physician using uterine size and/or LMP indicated by the patient.

Table 20
PATIENTS REPORTING PRIOR ABORTIONS BY AGE GROUP AND RESIDENCE MINNESOTA, 1988

Age Group	Total Reported Abortions			Minnesota Resident Abortions		
	Number	Prior Abortions[1]	Percent[2]	Number	Prior Abortions[1]	Percent[2]
TOTAL	17,975	6,183	34.4	16,124	5,711	35.4
<18	1,834	160	8.7	1,606	151	9.4
18-19	2,791	504	18.1	2,476	474	19.1
20-24	6,012	2,105	35.0	5,382	1,924	35.7
25-29	3,804	1,859	48.9	3,490	1,725	49.4
30-34	2,091	1,000	47.8	1,888	931	49.3
35+	1,320	516	39.1	1,170	468	40.0
Unknown	123	39	31.7	112	38	33.9

[1] Number of women who reported at least one prior abortion.

[2] Percentage of women within each age group who reported having had at least one prior abortion.

Table 21
REPORTED INDUCED ABORTIONS
BY METHOD BY COMPLICATIONS[1] AND RESIDENCE
MINNESOTA, 1988

	Total Reported Abortions				Minnesota Resident Abortions			
Method[2]	Procedures	Percent	Complications	Rate[3]	Procedures	Percent	Complications	Rate[3]
TOTAL	17,975	100.0	160	8.90	16,124	100.0	152	9.43
Vacuum Curettage	16,748	93.2	145	8.66	15,125	93.8	140	9.26
Dilation & Evacuation	1,217	6.8	15	12.33	989	6.1	12	12.13
Dilation & Curettage	2	0.0	0	0.00	2	0.0	0	0.00
Other[4]	8	0.0	0	0.00	8	0.0	0	0.00

---

[1] Reported complications include the categories: hemorrhage (>500 ml), pelvic infection, fever, cervical injury, uterine perforation, retained tissue and other procedure related conditions. In 1982, minor side effects experienced by abortion recipients were for the first time reported as complications. These minor side effects included bleeding (<500 ml), uterine cramping, and elevated temperatures lower than 38 degrees C.

[2] See definitions of methods in definitions section.

[3] Rate is reported complications per 1,000 abortion procedures.

[4] The "Other" category includes: prostaglandin; saline/fluid exchange; menstrual extraction (-pregnancy); menstrual extraction (+pregnancy); hysterectomy, hysterotomy; and other.

Table 22
MARITAL STATUS BY REPORTED CONTRACEPTIVE USE[1]
MINNESOTA RESIDENTS, 1988

Marital Status	Reported Resident Abortions	Reported Contraceptive Use[2]							
		Never Used	Percent[3]	Used in Past but Not Now	Percent[3]	Was Using	Percent[3]	Unknown	Percent[3]
TOTAL	16,124	1,170	7.3	10,703	66.4	4,009	24.9	242	1.5
Never Married	11,218	1,019	9.1	7,505	66.9	2,554	22.8	140	1.2
Currently Married	2,323	103	4.4	1,459	62.8	713	30.7	48	2.1
Other[4] and Unknown	2,583	48	1.9	1,739	67.3	742	28.7	54	2.1

[1] The data relative to contraceptive use are subjective as reporting relies on client recall.

[2] Responses given --

Never Used - "I've never used any form of birth control."

Used in Past but Not Now - includes responses similar to "I've used some type of birth control but not when I became pregnant" or "I usually use a method of contraception but through human error it was not effective (missed a pill, forgot to check for my IUD, did not use my diaphragm once or twice, etc.)." Please note that when comparing this category to previous years it will be necessary to combine the categories "Discontinued Use" and "Interrupted Use," which were collected and reported separately prior to the 1984 revision of the collection document.

Was Using - "I was using contraception when I became pregnant."

[3] Percent is read horizontally to equal 100%, i.e., each percent is the proportion of women in that marital status reporting any contraceptive use.

[4] Other includes: Divorced, Separated, and Widowed.

Table 23
REPORTED INDUCED ABORTIONS
BY AGE GROUP BY TYPE OF CONTRACEPTION USED AT CONCEPTION*
MINNESOTA RESIDENTS, 1988

Contraceptive Type	Reported Resident Abortions	Age Group						
		<18	18-19	20-24	25-29	30-34	35+	Unknown
TOTAL	16,124	1,606	2,476	5,382	3,490	1,888	1,170	112
None	12,115	1,375	2,043	4,040	2,472	1,287	806	92
Condoms	1,373	159	229	483	271	140	85	6
Combination Pills	653	32	98	294	163	57	9	0
Sponge	530	6	29	184	169	95	43	4
Diaphragm	454	2	12	111	128	120	76	5
Foam & Condom	165	1	11	40	61	30	21	1
Foam	133	7	5	36	35	24	24	2
Suppositories	123	3	5	32	44	25	13	1
Rhythm	115	2	6	29	30	29	19	0
Withdrawal	114	12	14	40	26	12	10	0
Male/Female Sterilization	42	0	0	5	14	8	15	0
Natural Family Planning	30	0	2	9	9	7	2	1
Spermicidal cream/jelly alone	44	2	2	8	14	11	7	0
Intrauterine Device	24	0	0	2	2	6	14	0
Mini Pills	18	0	2	10	3	3	0	0
Cervical Cap	13	0	1	2	6	3	1	0
Fertility Awareness	4	0	0	1	0	1	2	0
Injectable	4	0	0	2	1	1	0	0
Other	122	4	10	36	27	25	20	0
Unknown	48	1	7	18	15	4	3	0

---

* The data relative to contraceptive use are subjective as reporting relies on client recall.

Table 24
REPORTED INDUCED ABORTIONS
BY AGE GROUP BY CONTRACEPTIVE USE[1]
MINNESOTA RESIDENTS, 1988

		Reported Contraceptive Use[2]							
Age Group	Reported Resident Abortions	Never Used	Percent[3]	Used in Past but Not Now	Percent[3]	Was Using	Percent[3]	Unknown	Percent[3]
TOTAL	16,124	1,170	7.3	10,703	66.4	4,009	24.9	242	1.5
<15	79	42	53.2	29	36.7	6	7.6	2	2.5
15-17	1,527	370	24.2	909	59.5	225	14.7	23	1.5
18-19	2,476	291	11.8	1,723	69.6	433	17.5	29	1.2
20-24	5,382	283	5.3	3,680	68.4	1,342	24.9	77	1.4
25-29	3,490	97	2.8	2,322	66.5	1,018	29.2	53	1.5
30-34	1,888	47	2.5	1,205	63.8	601	31.8	35	1.9
35-39	925	24	2.6	585	63.2	296	32.0	20	2.2
40+	245	9	3.7	165	67.3	68	27.8	3	1.2
Unknown	112	7	6.2	85	75.9	20	17.9	0	0.0

---

[1] The data relative to contraceptive use are subjective as reporting relies on client recall.

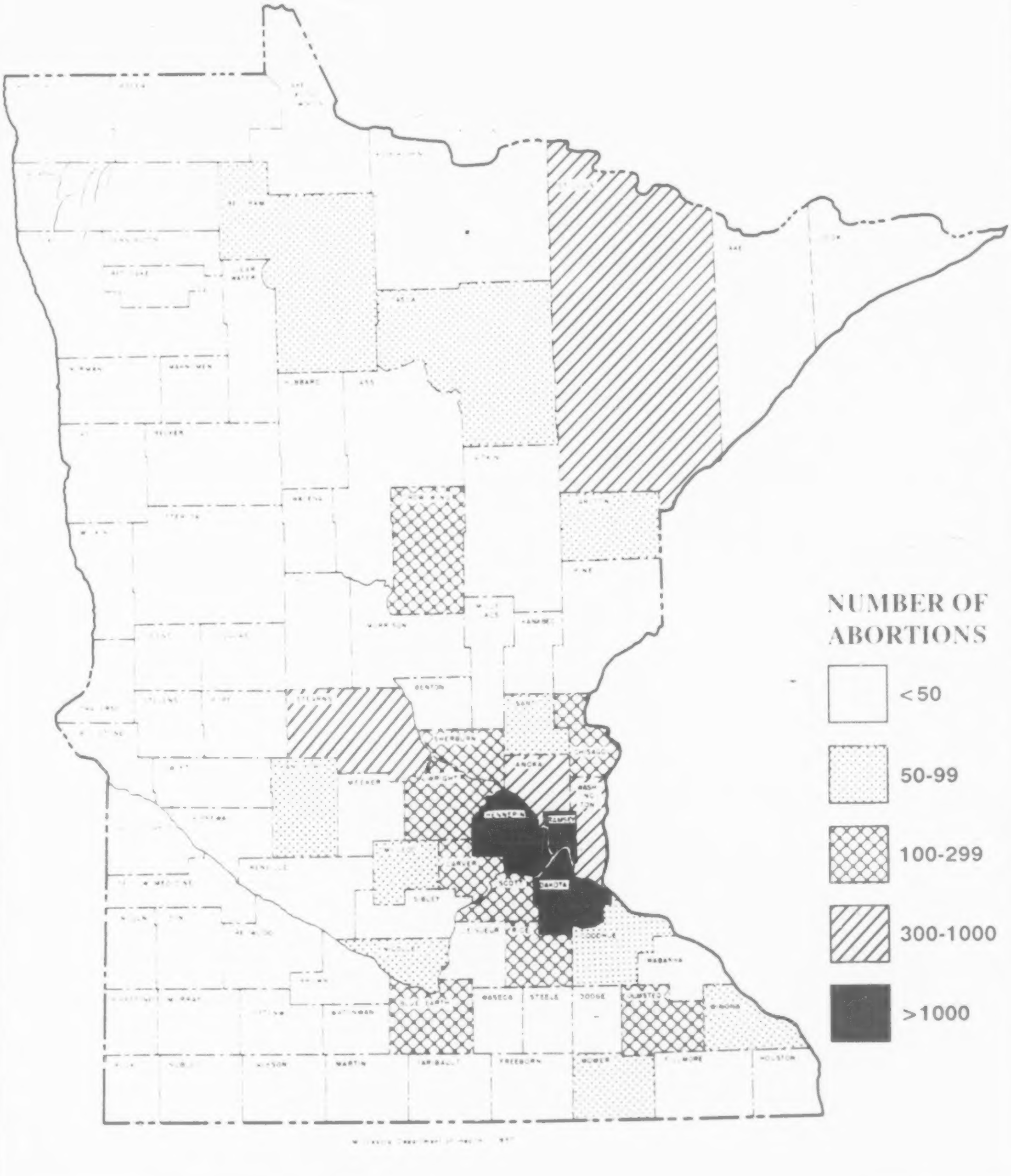
[2] Responses given --
Never Used - "I've never used any form of birth control."
Used in Past but Not Now - includes responses similar to "I've used some type of birth control but not when I became pregnant" or "I usually use a method of contraception but through human error it was not effective (missed a pill, forgot to check for my IUD, did not use my diaphragm once or twice, etc.)." Please note that when comparing this category to previous years it will be necessary to combine the categories "Discontinued Use" and "Interrupted Use," which were collected and reported separately prior to the 1984 revision of the collection document.
Was Using - "I was using contraception when I became pregnant."

[3] Percent is read horizontally to equal 100%, i.e., each percent is the proportion of women in that age group reporting any contraceptive use.

Table 25
REPORTED INDUCED ABORTIONS OCCURRING IN MINNESOTA TO NON-MINNESOTA RESIDENTS BY STATE OR COUNTRY OF RESIDENCE, 1988

State or Foreign Country of Residence	Number	Percent
TOTAL	1,851	100.0
Illinois	12	0.6
Iowa	127	6.9
Michigan	53	2.9
North Dakota	79	4.3
South Dakota	106	5.7
Wisconsin	1,332	72.0
Other U.S. States	46	2.5
Canada	85	4.6
Other Foreign Countries and Unknown	11	0.6

FIGURE 1
REPORTED INDUCED ABORTIONS BY COUNTY
OF RESIDENCE, 1988


NUMBER OF ABORTIONS
<50
50-99
100-299
300-1000
>1000
BENTON
STEARNS
SHERBURNE
ANOKA
WRIGHT
MEEKER
HENNEPIN
RAMSEY
DAKOTA
SCOTT
CARVER
SIBLEY
RENVILLE
GOODHUE
WABASHA
WINONA
OLMSTED
DODGE
STEELE
WASECA
BLUE EARTH
WATONWAN
COTTONWOOD
MURRAY
MOWER
FREEBORN
FARIBAULT
MARTIN
JACKSON
FILLMORE
HOUSTON
MORRISON
CARLTON
PINE
KANABEC

Fertility

Table 26
TOTAL REPORTED PREGNANCIES BY OUTCOME TYPE AND RATE
MINNESOTA RESIDENTS, 1975-1988

Year	Outcome Type Live Births	Outcome Type Reported[1] Induced Abortions	Outcome Type Fetal[2] Deaths	Total[3] Reported Pregnancies	Female Population Ages 15-44	Pregnancy[4] Rate
1975	56,463	8,924	479	65,866	863,882	76.2
1976	56,599	11,109	487	68,195	886,997	76.9
1977	60,284	13,036	471	73,791	902,754	81.7
1978	61,997	14,521	468	76,986	923,409	83.4
1979	65,325	15,647	445	81,417	947,367	85.9
1980	67,843	16,490	449	84,782	958,773	88.4
1981	68,652	15,821	461	84,934	967,087	87.8
1982	68,512	15,559	429	84,500	977,905	86.4
1983	65,559	14,514	457	80,530	981,287	82.1
1984	66,715	15,556	465	82,736	985,608	83.9
1985	67,412	16,002	439	83,853	994,249	84.3
1986	65,766	15,716	400	81,882	997,501	82.1
1987	65,168	15,746	404	81,318	1,004,801	80.9
1988	66,745	16,124	466	83,335	1,020,209	81.7

[1] Includes only those reported induced abortions occurring in Minnesota to Minnesota residents

[2] Includes reported fetal deaths of 20 weeks or more gestation

[3] Excludes miscarriages

[4] Number of pregnancies per 1,000 women in the population of ages 15 through 44

Table 27
PREGNANCY OUTCOMES AND PREGNANCY RATES* BY AGE OF WOMAN
MINNESOTA RESIDENTS, SELECTED YEARS, 1980-1988

	Age of Woman									
Year	Total**	<15	15-17	18-19	20-24	25-29	30-34	35-39	40+	Unknown
1980										
Live Births	67,843	45	1,988	5,000	22,546	24,035	11,300	2,485	437	7
Fetal Deaths	449	1	13	38	140	131	79	29	9	9
Induced Abortions	16,490	104	2,223	3,380	6,054	2,823	1,219	491	183	13
Total Pregnancies***	84,782	150	4,224	8,418	28,740	26,989	12,598	3,005	629	29
Age Specific Pregnancy Rate****	80.2	1.5	36.9	101.3	144.6	149.3	80.5	24.4	6.2	-
1985										
Live Births	67,412	55	1,518	3,509	18,968	24,797	14,283	3,804	467	11
Fetal Deaths	439	-	15	26	109	155	93	25	8	8
Induced Abortions	16,002	103	1,467	2,531	6,067	3,216	1,641	758	198	21
Total Pregnancies***	83,853	158	3,000	6,066	25,144	28,168	16,017	4,587	673	40
Age Specific Pregnancy Rate****	77.3	1.7	29.8	81.3	125.1	147.9	94.5	32.2	5.8	-
1986										
Live Births	65,766	54	1,572	3,179	17,485	24,491	14,381	4,086	509	9
Fetal Deaths	400	-	15	25	109	125	83	24	8	11
Induced Abortions	15,716	86	1,459	2,372	5,724	3,323	1,682	845	185	40
Total Pregnancies***	81,882	140	3,046	5,576	23,318	27,939	16,146	4,955	702	60
Age Specific Pregnancy Rate****	75.2	1.5	30.2	74.7	115.8	146.2	94.9	34.6	6.0	-
1987										
Live Births	65,168	53	1,535	3,268	15,955	24,266	15,050	4,434	602	5
Fetal Deaths	404	2	11	22	103	121	99	33	9	4
Induced Abortions	15,746	74	1,574	2,306	5,576	3,339	1,790	838	216	33
Total Pregnancies***	81,318	129	3,120	5,596	21,634	27,726	16,939	5,305	827	42
Age Specific Pregnancy Rate****	74.2	1.4	30.7	74.5	106.7	144.0	98.7	36.8	7.1	-
1988										
Live Births	66,745	63	1,512	3,281	15,710	24,893	15,803	4,822	642	19
Fetal Deaths	466	1	12	35	101	156	105	41	10	5
Induced Abortions	16,124	79	1,527	2,476	5,382	3,490	1,888	925	245	112
Total Pregnancies***	83,335	143	3,051	5,792	21,193	28,539	17,796	5,788	897	136
Age Specific Pregnancy Rate****	74.9	1.5	29.6	76.1	103.0	146.0	102.0	39.5	7.6	-

* Rates for 1985 and 1986 have been recalculated using revised population estimates since the publication of 1986 Minnesota Health Statistics.

** For purposes of this table total pregnancy rates are calculated per 1,000 female population of ages 12 through 44.

*** Does not include miscarriages.

**** Total pregnancies within a specified age group per 1,000 female population within the same age group.

Infant Mortality and Fetal Deaths

Table 28
INFANT, NEONATAL AND POSTNEONATAL DEATHS BY CAUSE
MINNESOTA RESIDENTS, 1988

Causes of Death	Infant Deaths	Neonatal				Post-neonatal
		Total	Under 1 Day	1-6 Days	7-27 Days	
Total - All Causes	521	316	203	70	43	205
Certain conditions originating in the perinatal period	205	186	128	39	19	19
Selected respiratory conditions of fetus and newborn	53	46	31	11	4	7
Respiratory distress syndrome	36	32	13	12	7	4
Maternal conditions	36	35	33	2	-	1
Short gestation and low birth weight	30	30	30	-	-	-
Intrauterine hypoxia and birth asphyxia	16	15	7	7	1	1
Fetal and neonatal hemorrhage	3	2	1	1	-	1
Birth trauma	3	3	1	1	1	-
Congenital anomalies	141	111	71	25	15	30
Of heart	41	26	7	11	8	15
Of respiratory system	19	19	19	-	-	-
Anencephalus and similar anomalies	13	13	9	3	1	-
Of urinary system	13	13	12	1	-	-
Chromosomal anomalies	11	7	3	4	-	4
Symptoms, signs, and ill-defined conditions	103	4	-	2	2	99
Sudden infant death syndrome	99	4	-	2	2	95
Diseases of the respiratory system	15	1	-	-	1	14
Pneumonia and influenza	5	1	-	-	1	4
Diseases of the circulatory system	14	5	2	3	-	9
Unintentional injury	10	2	-	1	1	8
Motor vehicle	3	1	-	-	1	2
Mechanical suffocation	3	1	-	1	-	2
Infective and parasitic diseases	9	1	1	-	-	8
Septicemia	2	-	-	-	-	2
Diseases of the nervous system and sense organs	7	2	-	-	2	5
Endocrine, nutritional, and metabolic diseases and immunity disorders	5	1	-	-	1	4
Diseases of the digestive system	4	2	1	-	1	2
Homicide	4	-	-	-	-	4
Diseases of the blood and blood-forming organs	2	-	-	-	-	2
Diseases of the genitourinary system	2	1	-	-	1	1

Table 29
FETAL DEATHS OF 20 WEEKS AND OVER BY CAUSE AND WEIGHT OF FETUS
MINNESOTA RESIDENTS, 1988

		Weight in Grams									
Cause of Death	Total Fetal Deaths	999 or Less	1,000 to 1,499	1,500 to 1,999	2,000 to 2,499	2,500 to 2,999	3,000 to 3,499	3,500 to 3,999	4,000 to 4,499	4,500 and Over	Weight Unknown
Total - All Causes	466	178	40	28	30	30	23	21	3	5	108
Complications of Placenta, Cord, or Membranes	165	49	13	12	14	20	13	10	-	1	33
Maternal Conditions Related to Pregnancy	58	34	3	3	1	-	-	-	-	-	17
Congenital Anomalies	48	26	5	4	3	1	2	-	-	-	7
Anencephalus and Similar Anomalies	12	6	3	2	-	-	-	-	-	-	1
Hydrocephalus	1	-	-	-	-	1	-	-	-	-	-
Maternal Conditions Unrelated to Pregnancy	29	7	5	1	1	-	-	1	-	-	14
Other Diseases or Conditions Specific to the Perinatal Period	14	4	1	-	1	1	2	3	-	-	2
Short Gestation and Low Birthweight	9	8	-	-	1	-	-	-	-	-	-
Slow Fetal Growth and Fetal Malnutrition	9	3	2	-	-	1	-	-	-	-	3
Hypoxia and Birth Asphyxia	7	1	1	-	-	-	1	-	-	-	4
Complications of Labor and Delivery	7	1	-	1	1	-	-	-	1	3	-
Malpresentation of Fetus	5	-	-	-	1	-	-	-	1	3	-
Syndrome of "Infant of a Diabetic Mother"	4	-	-	-	-	-	1	1	1	-	1
Ill-defined Conditions Originating in Perinatal Period	116	45	10	7	8	7	4	6	1	1	27

General Mortality

Every day in 1988, residents of Minnesota experienced an average of:

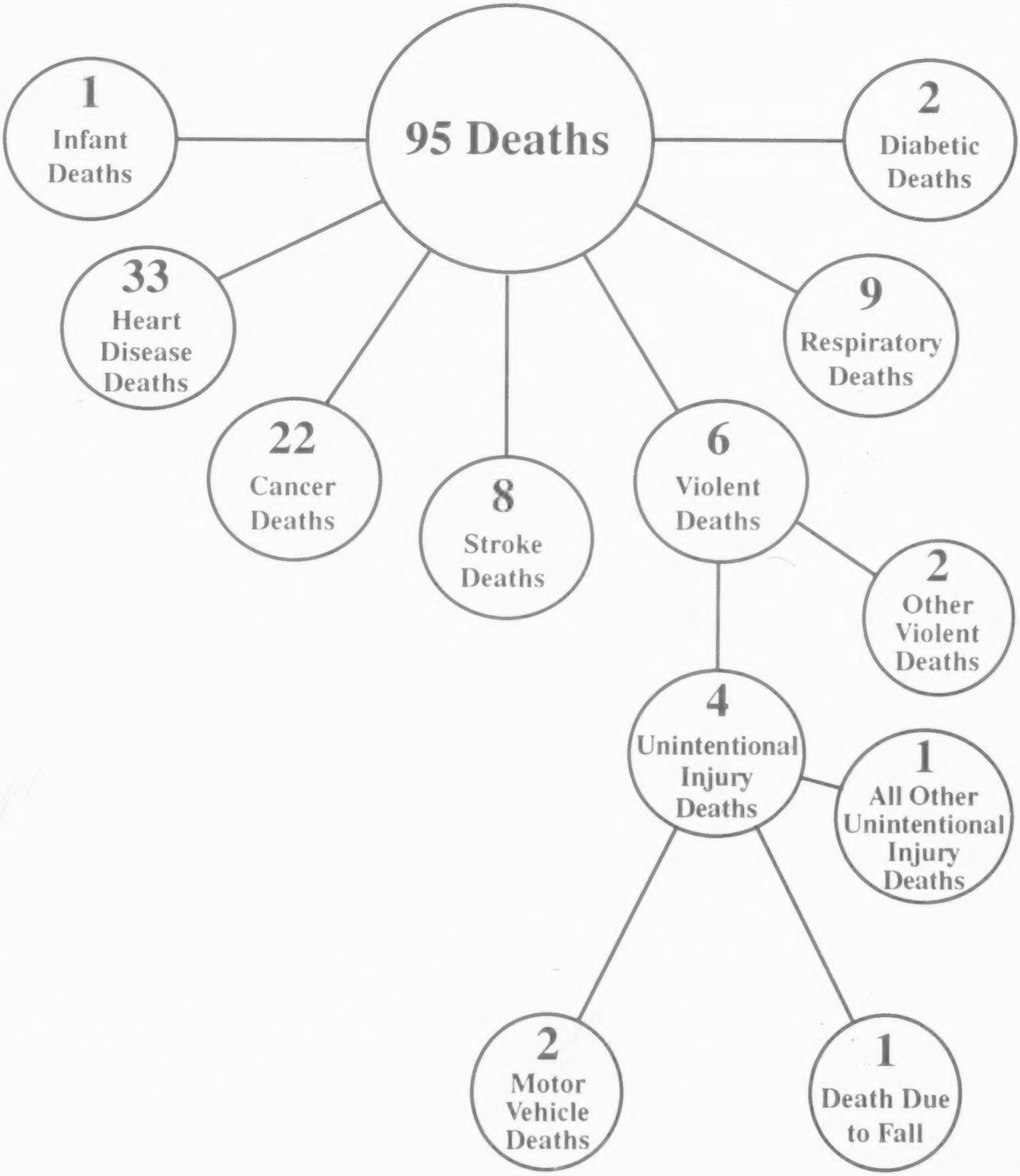

95 Deaths
1 Infant Deaths
2 Diabetic Deaths
33 Heart Disease Deaths
9 Respiratory Deaths
22 Cancer Deaths
8 Stroke Deaths
6 Violent Deaths
2 Other Violent Deaths
4 Unintentional Injury Deaths
1 All Other Unintentional Injury Deaths
2 Motor Vehicle Deaths
1 Death Due to Fall

Table 30
DEATHS BY COUNTY OF OCCURRENCE DISTRIBUTED ACCORDING TO RESIDENCE: RESIDENT DEATHS DISTRIBUTED ACCORDING TO PLACE OF DEATH
MINNESOTA, 1988

	Deaths Occurring in County				Resident Deaths		
					Outside County		
County	Total	County Residents	Other Minnesota Residents	Out of State Residents	Within Minnesota	Outside Minnesota	Total
State Total	35,637	27,921	6,032	1,684	6,032	1,483	35,436
Aitkin	126	118	8	-	46	3	167
Anoka	992	683	293	16	284	23	990
Becker	247	212	29	6	26	62	300
Beltrami	294	247	44	3	36	15	298
Benton	185	146	38	1	113	3	262
Big Stone	97	75	10	12	21	8	104
Blue Earth	429	342	83	4	77	5	424
Brown	297	234	61	2	74	1	309
Carlton	290	235	52	3	74	8	317
Carver	218	140	77	1	92	6	238
Cass	156	126	25	5	127	14	267
Chippewa	174	152	21	1	41	3	196
Chisago	227	174	53	-	75	21	270
Clay	242	205	15	22	17	119	341
Clearwater	83	72	9	2	16	15	103
Cook	36	27	3	6	6	1	34
Cottonwood	114	100	14	-	36	14	150
Crow Wing	444	364	75	5	93	18	475
Dakota	802	633	139	30	425	31	1,089
Dodge	85	73	12	-	68	3	144
Douglas	342	280	60	2	32	10	322
Faribault	208	186	12	10	48	4	238
Fillmore	208	181	20	7	74	27	282
Freeborn	360	315	32	13	55	9	379
Goodhue	412	351	46	15	69	6	426
Grant	85	70	14	1	18	4	92
Hennepin	9,242	7,163	1,660	419	499	119	7,781
Minneapolis	4,573	2,823	1,489	261	981	49	3,853
Houston	136	116	11	9	11	72	199
Hubbard	178	113	59	6	25	15	153
Isanti	213	172	39	2	44	1	217
Itasca	408	363	39	6	77	6	446
Jackson	83	74	7	2	23	18	115
Kanabec	120	94	25	1	35	1	130
Kandiyohi	398	280	115	3	48	9	337
Kittson	61	55	3	3	7	17	79
Koochiching	138	134	4	-	30	5	169
Lac Qui Parle	106	95	8	3	31	3	129
Lake	88	70	15	3	17	1	88
Lake of the Woods	39	29	6	4	6	4	39
Le Sueur	148	125	23	-	122	4	251
Lincoln	109	86	10	13	10	16	112
Lyon	198	173	24	1	32	26	231
McLeod	305	236	69	-	47	4	287
Mahnomen	41	34	6	1	7	10	51
Marshall	65	61	3	1	22	36	119
Martin	258	220	16	22	27	19	266
Meeker	191	162	28	1	65	2	229
Mille Lacs	202	154	47	1	43	4	201
Morrison	254	225	26	3	62	3	290
Mower	345	313	29	3	97	25	435

Table 30
DEATHS BY COUNTY OF OCCURRENCE DISTRIBUTED ACCORDING TO RESIDENCE: RESIDENT DEATHS DISTRIBUTED ACCORDING TO PLACE OF DEATH, MINNESOTA, 1988 (CONT.)

	Deaths Occurring in County				Resident Deaths		
					Outside County		
County	Total	County Residents	Other Minnesota Residents	Out of State Residents	Within Minnesota	Outside Minnesota	Total
Murray	74	65	8	1	26	16	107
Nicollet	164	116	47	1	68	4	188
Nobles	179	147	23	9	21	32	200
Norman	92	81	9	2	14	31	126
Olmsted	1,506	582	480	444	27	5	614
Otter Tail	483	430	40	13	85	68	583
Pennington	177	136	39	2	9	11	156
Pine	133	118	11	4	112	7	237
Pipestone	112	102	9	1	3	30	135
Polk	308	256	34	18	13	80	349
Pope	140	120	16	4	30	1	151
Ramsey	4,356	3,509	699	148	488	58	4,055
St. Paul	3,243	2,207	905	131	457	36	2,700
Red Lake	28	25	3	-	23	8	56
Redwood	168	131	35	2	76	7	214
Renville	172	152	19	1	94	5	251
Rice	376	306	66	4	54	9	369
Rock	89	74	12	3	4	22	100
Roseau	99	97	2	-	11	18	126
St. Louis	2,473	2,090	173	210	119	42	2,251
Duluth	1,470	992	285	193	68	22	1,082
Scott	327	219	106	2	74	7	300
Sherburne	154	117	36	1	118	2	237
Sibley	116	103	11	2	66	1	170
Stearns	833	555	266	12	106	8	669
Steele	212	189	20	3	78	8	275
Stevens	91	75	16	-	14	4	93
Swift	113	106	6	1	50	2	158
Todd	134	119	15	-	98	11	228
Traverse	56	36	10	10	17	10	63
Wabasha	174	141	19	14	66	4	211
Wadena	208	130	77	1	31	20	181
Waseca	101	85	16	-	46	1	132
Washington	472	377	80	15	269	26	672
Watonwan	114	98	14	2	45	5	148
Wilkin	115	56	2	57	11	8	75
Winona	348	318	12	18	44	42	404
Wright	323	265	55	3	153	10	428
Yellow Medicine	138	107	29	2	33	6	146
Unknown	-	-	-	-	6	1	7

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 •	521 •	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
000-139 I.	INFECTIOUS AND PARASITIC DISEASES	T	418	9	3	1	4	4	3	12	20	32	19	14	6	7	20	39	41	46	55	83
		M	251	5	2	1	2	3	2	10	17	29	18	11	3	4	11	25	22	25	29	32
		F	167	4	1	-	2	1	1	2	3	3	1	3	3	3	9	14	19	21	26	51
001-009	Intestinal Infectious Diseases	T	7	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	2
		M	4	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	-
		F	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2
004	Shigellosis	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
010-018, 137	Tuberculosis (Including Late Effects Of)	T	15	-	-	-	-	-	-	1	-	-	-	-	-	1	1	-	4	4	3	1
		M	8	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	3	1	2	1
		F	7	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	3	1	-
010-012	Respiratory Tuberculosis (Active)	T	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-
		M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	1	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
013-018	Other Tuberculosis (Active)	T	5	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	2	-	-
		M	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	1	-	-
		F	3	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	1	-	-
137	Late Effects of Tuberculosis	T	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	2	1
		M	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	1	1
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-
032	Diphtheria	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
033	Whooping Cough	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
034-035	Streptococcal Sore Throat, Scarlatina, and Erysipelas	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
036	Meningococcal Infection	T	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	2	1	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
037	Tetanus	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
038	Septicemia	T	210	2	-	1	1	-	1	1	-	2	4	1	3	5	13	21	26	29	35	65
		M	110	2	-	1	-	-	-	1	-	2	3	-	1	3	8	14	16	18	17	24
		F	100	-	-	-	1	-	1	-	-	-	1	1	2	2	5	7	10	11	18	41
045	Acute Poliomyelitis	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
055	Measles	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
062-064	Viral Encephalitis (Acute)	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
070	Viral Hepatitis	T	12	-	-	-	-	-	-	-	-	2	1	2	-	1	-	-	2	2	1	1
		M	5	-	-	-	-	-	-	-	-	1	1	1	-	1	-	-	1	-	-	-
		F	7	-	-	-	-	-	-	-	-	1	-	1	-	-	-	-	1	2	1	1
090-097	Syphilis	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual	Other Infectious and Parasitic Diseases	T	172	6	2	-	2	4	2	10	20	28	14	11	3	-	6	18	8	11	13	14
		M	122	2	1	-	1	3	2	9	17	26	14	10	2	-	2	11	1	6	8	7
		F	50	4	1	-	1	1	-	1	3	2	-	1	1	-	4	7	7	5	5	7

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 *	521 *	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
140-239	II. NEOPLASMS	T	8,221	-	13	12	9	11	18	30	44	93	145	201	345	565	866	1,105	1,259	1,249	1,107	1,149
		M	4,251	-	7	10	4	7	12	17	29	33	62	85	172	311	481	608	678	686	559	490
		F	3,970	-	6	2	5	4	6	13	15	60	83	116	173	254	385	497	581	563	548	659
140-208	Malignant Neoplasms	T	8,100	-	10	10	9	11	16	27	44	90	143	199	343	560	856	1,096	1,242	1,234	1,087	1,123
		M	4,205	-	6	9	4	7	10	17	29	33	61	84	171	310	476	604	669	678	552	485
		F	3,895	-	4	1	5	4	6	10	15	57	82	115	172	250	380	492	573	556	535	638
140-149	Of Lip, Oral Cavity and Pharynx	T	114	-	-	-	-	-	-	1	-	4	-	3	8	16	14	14	15	20	8	11
		M	70	-	-	-	-	-	-	-	-	3	-	2	7	12	9	8	8	14	6	1
		F	44	-	-	-	-	-	-	1	-	1	-	1	1	4	5	6	7	6	2	10
150-159	Of Digestive Organs and Peritoneum	T	2,035	-	-	-	-	-	1	1	4	16	14	35	75	131	193	256	329	324	304	352
		M	1,053	-	-	-	-	-	-	-	4	8	11	23	47	83	129	139	178	168	136	127
		F	982	-	-	-	-	-	1	1	-	8	3	12	28	48	64	117	151	156	168	225
150	Of Esophagus	T	140	-	-	-	-	-	-	1	-	-	1	3	9	14	17	23	20	23	18	11
		M	94	-	-	-	-	-	-	-	-	-	1	2	7	9	14	17	13	14	11	6
		F	46	-	-	-	-	-	-	1	-	-	-	1	2	5	3	6	7	9	7	5
151	Of Stomach	T	243	-	-	-	-	-	-	-	-	4	4	2	4	15	22	22	47	43	41	39
		M	143	-	-	-	-	-	-	-	-	3	3	2	2	7	15	14	32	27	20	18
		F	100	-	-	-	-	-	-	-	-	1	1	-	2	8	7	8	15	16	21	21
152	Of Small Intestine, Including Duodenum	T	17	-	-	-	-	-	-	-	-	-	-	1	1	1	2	3	1	2	3	3
		M	7	-	-	-	-	-	-	-	-	-	-	1	1	-	2	1	-	-	1	1
		F	10	-	-	-	-	-	-	-	-	-	-	-	-	1	-	2	1	2	2	2
153	Of Colon	T	849	-	-	-	-	-	-	-	1	5	5	12	26	49	70	110	134	129	131	177
		M	429	-	-	-	-	-	-	-	1	-	4	6	12	32	49	59	70	67	67	62
		F	420	-	-	-	-	-	-	-	-	5	1	6	14	17	21	51	64	62	64	115
154	Of Rectum, Rectosigmoid Junction and Anus	T	116	-	-	-	-	-	-	-	-	1	1	4	4	10	12	8	20	24	12	20
		M	66	-	-	-	-	-	-	-	-	1	1	4	4	8	6	6	10	14	5	7
		F	50	-	-	-	-	-	-	-	-	-	-	-	-	2	6	2	10	10	7	13
160-165	Of Respiratory System	T	1,879	-	-	-	1	-	-	1	2	11	31	48	106	178	270	332	323	281	183	112
		M	1,247	-	-	-	-	-	-	1	1	6	15	25	65	115	178	224	216	202	131	68
		F	632	-	-	-	1	-	-	-	1	5	16	23	41	63	92	108	107	79	52	44
162	Of Trachea, Bronchus and Lung	T	1,814	-	-	-	1	-	-	1	2	11	30	47	102	172	257	325	313	270	174	109
		M	1,196	-	-	-	-	-	-	1	1	6	14	24	61	109	168	218	209	194	124	67
		F	618	-	-	-	1	-	-	-	1	5	16	23	41	63	89	107	104	76	50	42
170-175	Of Bone, Connective Tissue, Skin and Breast	T	974	-	1	1	-	2	2	3	11	32	47	44	64	76	112	108	128	104	112	127
		M	111	-	1	1	-	2	-	2	5	2	8	5	8	11	10	12	12	15	10	7
		F	863	-	-	-	-	-	2	1	6	30	39	39	56	65	102	96	116	89	102	120
172-173	Of Skin	T	132	-	-	-	-	-	-	2	5	5	7	7	12	14	9	14	13	10	15	19
		M	68	-	-	-	-	-	-	1	3	2	3	4	8	8	4	11	6	6	7	5
		F	64	-	-	-	-	-	-	1	2	3	4	3	4	6	5	3	7	4	8	14
174-175	Of Breast	T	771	-	-	-	-	-	1	-	4	26	36	35	51	57	95	90	105	73	100	98
		M	6	-	-	-	-	-	-	-	-	-	1	-	-	-	1	1	-	1	1	1
		F	765	-	-	-	-	-	1	-	4	26	35	35	51	57	94	89	105	72	99	97
179-189	Of Genitourinary Organs	T	1,435	-	-	-	-	1	1	4	9	8	16	28	30	66	119	185	204	244	254	266
		M	871	-	-	-	-	1	1	3	5	2	3	5	12	34	63	108	123	151	175	185
		F	564	-	-	-	-	-	-	1	4	6	13	23	18	32	56	77	81	93	79	81
179-182	Of Uterus, Cervix and Placenta	T	161	-	-	-	-	-	-	1	2	3	7	7	5	5	12	22	25	28	21	23
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	161	-	-	-	-	-	-	1	2	3	7	7	5	5	12	22	25	28	21	23
185	Of Prostate	T	588	-	-	-	-	-	-	-	1	-	-	1	3	16	27	74	90	107	135	142
		M	588	-	-	-	-	-	-	-	1	-	-	1	3	16	27	74	90	107	135	142
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
190-199	Of Other and Unspecified Sites	T	807	-	6	4	6	3	4	10	5	9	18	20	34	49	83	107	122	129	87	113
		M	421	-	4	4	3	1	3	6	4	8	13	11	18	28	45	65	61	66	38	45
		F	386	-	2	-	3	2	1	4	1	1	5	9	16	21	38	42	61	63	49	68
191-192	Of Brain and Other Parts of Central Nervous System	T	232	-	2	2	6	3	4	9	4	8	10	10	13	21	29	31	35	23	13	10
		M	129	-	1	2	2	1	3	6	3	8	5	6	6	13	13	16	18	14	8	4
		F	103	-	1	-	4	2	1	3	1	-	5	4	7	8	16	15	17	9	5	6

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX MINNESOTA RESIDENTS, 1988

9th Revision No.		Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
		ALL CAUSES, Total	T	35,436 •	521 •	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
			M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
			F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
200-208		Of Lymphatic and Hematopoietic Tissue	T	856	-	3	5	2	5	8	7	13	10	17	21	26	44	65	94	121	132	141	142
			M	432	-	1	4	1	3	6	5	10	4	11	13	14	27	42	48	71	62	58	52
			F	424	-	2	1	1	2	2	2	3	6	6	8	12	17	23	46	50	70	83	90
201		Hodgkin's Disease	T	29	-	-	-	-	1	2	3	3	3	-	1	2	1	1	2	3	1	3	3
			M	14	-	-	-	-	1	1	2	3	1	-	1	1	1	-	-	2	-	-	1
			F	15	-	-	-	-	-	1	1	-	2	-	-	1	-	1	2	1	1	3	2
204-208		Leukemia	T	317	-	3	4	2	4	5	2	4	4	5	10	7	17	23	30	41	48	48	60
			M	164	-	3	4	1	2	4	2	2	-	4	5	4	8	11	16	25	28	20	27
			F	153	-	-	-	1	2	1	-	2	4	1	5	3	9	12	14	16	20	28	33
210-239		Benign Neoplasms and Neoplasms of Uncertain Behavior	T	121	-	3	2	-	-	2	3	-	3	2	2	2	5	10	9	17	15	20	26
			M	46	-	1	1	-	-	2	-	-	-	1	1	1	1	5	4	9	8	7	5
			F	75	-	2	1	-	-	-	3	-	3	1	1	1	4	5	5	8	7	13	21
240-279	III.	ENDOCRINE,NUTRITIONAL AND METABOLIC DISEASES AND IMMUNITY DISORDERS	T	816	5	1	3	-	1	1	7	6	15	11	14	25	34	53	66	84	113	120	257
			M	387	2	1	2	-	-	-	3	3	12	8	11	14	23	33	31	46	52	54	92
			F	429	3	-	1	-	1	1	4	3	3	3	3	11	11	20	35	38	61	66	165
250		Diabetes Mellitus	T	556	-	1	-	-	1	-	3	4	10	10	10	18	23	42	51	67	84	89	143
			M	277	-	1	-	-	-	-	3	2	7	7	7	8	15	26	26	35	40	42	58
			F	279	-	-	-	-	1	-	-	2	3	3	3	10	8	16	25	32	44	47	85
260-269		Nutritional Deficiencies	T	69	1	-	-	-	-	-	-	1	-	-	-	-	-	-	3	3	6	5	50
			M	24	-	-	-	-	-	-	-	1	-	-	-	-	-	-	1	3	3	2	14
			F	45	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	3	3	36
Residual		(240-249, 251-259, 270-279)	T	191	4	-	3	-	-	1	4	1	5	1	4	7	11	11	12	14	23	26	64
			M	86	2	-	2	-	-	-	-	-	5	1	4	6	8	7	4	8	9	10	20
			F	105	2	-	1	-	-	1	4	1	-	-	-	1	3	4	8	6	14	16	44
280-289	IV.	DISEASES OF THE BLOOD AND BLOOD-FORMING ORGANS	T	143	2	1	-	-	-	-	1	1	4	2	5	4	8	7	8	13	16	16	55
			M	65	2	-	-	-	-	-	1	1	3	2	3	2	3	4	3	9	11	7	14
			F	78	-	1	-	-	-	-	-	-	1	-	2	2	5	3	5	4	5	9	41
280-285		Anemias	T	61	1	-	-	-	-	-	-	1	2	1	-	-	2	2	5	6	3	7	31
			M	24	1	-	-	-	-	-	-	1	2	1	-	-	1	1	2	4	2	3	6
			F	37	-	-	-	-	-	-	-	-	-	-	-	-	1	1	3	2	1	4	25
Residual		(286-289)	T	82	1	1	-	-	-	-	1	-	2	1	5	4	6	5	3	7	13	9	24
			M	41	1	-	-	-	-	-	1	-	1	1	3	2	2	3	1	5	9	4	8
			F	41	-	1	-	-	-	-	-	-	1	-	2	2	4	2	2	2	4	5	16
290-319	V.	MENTAL DISORDERS	T	658	-	-	1	-	1	3	3	4	6	7	6	3	14	14	29	44	53	134	336
			M	268	-	-	1	-	-	2	2	3	5	4	6	2	10	13	18	25	31	63	83
			F	390	-	-	-	-	1	1	1	1	1	3	-	1	4	1	11	19	22	71	253
320-389	VI.	DISEASES OF THE NERVOUS SYSTEM AND SENSE ORGANS	T	780	7	10	3	1	2	4	6	5	10	8	10	16	16	33	45	105	132	152	215
			M	362	4	6	2	1	1	4	4	2	7	5	4	11	8	17	22	50	69	70	75
			F	418	3	4	1	-	1	-	2	3	3	3	6	5	8	16	23	55	63	82	140
320-322		Meningitis (Excludes Infective Meningitis)	T	11	1	2	-	-	-	-	1	-	-	-	-	-	-	-	-	2	2	2	1
			M	3	-	1	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	1
			F	8	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	2	-
332		Parkinson's Disease	T	179	-	-	-	-	-	-	-	-	-	-	-	-	-	2	6	37	40	38	56
			M	94	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	20	26	20	25
			F	85	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	17	14	18	31
340		Multiple Sclerosis	T	38	-	-	-	-	-	-	1	1	1	2	4	4	3	6	5	3	4	2	2
			M	12	-	-	-	-	-	-	-	-	1	1	-	3	-	3	1	1	2	-	-
			F	26	-	-	-	-	-	-	1	1	-	1	4	1	3	3	4	2	2	2	2
Residual		(323-331, 333-339, 341-389)	T	552	6	8	3	1	2	4	4	4	9	6	6	12	13	25	34	63	86	110	156
			M	253	4	5	2	1	1	4	3	2	6	4	4	8	8	13	19	29	41	50	49
			F	299	2	3	1	-	1	-	1	2	3	2	2	4	5	12	15	34	45	60	107

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 *	521 *	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	13,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
390-459	VII. DISEASES OF THE CIRCULATORY SYSTEM	T	16,031	14	5	3	4	7	17	27	35	60	127	184	257	460	831	1,258	1,836	2,321	2,765	5,820
		M	7,882	8	4	1	3	4	11	19	21	46	100	140	188	341	604	841	1,156	1,253	1,262	1,880
		F	8,149	6	1	2	1	3	6	8	14	14	27	44	69	119	227	417	680	1,068	1,503	3,940
390-398, 402, 404-429	Diseases of the Heart	T	11,899	10	5	3	2	3	11	23	27	52	101	151	216	397	695	1,028	1,440	1,746	2,005	3,984
		M	6,159	6	4	1	2	2	9	17	20	40	88	123	167	303	514	703	940	956	944	1,320
		F	5,740	4	1	2	-	1	2	6	7	12	13	28	49	94	181	325	500	790	1,061	2,664
390-398	Acute Rheumatic Fever and Chronic Rheumatic Heart Disease	T	106	-	1	-	1	1	1	1	-	2	3	-	5	1	4	9	19	16	25	17
		M	30	-	1	-	1	1	1	1	-	-	-	-	1	-	2	2	7	3	9	1
		F	76	-	-	-	-	-	-	-	-	2	3	-	4	1	2	7	12	13	16	16
402, 404	Hypertensive Heart With or Without Renal Disease	T	169	-	-	-	-	-	-	-	-	-	1	1	1	1	6	13	26	25	30	65
		M	60	-	-	-	-	-	-	-	-	-	1	1	1	1	5	9	15	8	8	11
		F	109	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	11	17	22	54
410-414	Ischemic Heart Disease	T	8,177	-	-	-	-	-	1	8	16	36	72	119	158	308	513	750	1,033	1,228	1,440	2,495
		M	4,448	-	-	-	-	-	1	7	12	30	69	97	131	240	380	531	682	699	709	860
		F	3,729	-	-	-	-	-	-	1	4	6	3	22	27	68	133	219	351	529	731	1,635
410	Acute Myocardial Infarction	T	3,634	-	-	-	-	-	-	4	3	19	40	62	82	169	266	390	563	597	647	792
		M	2,096	-	-	-	-	-	-	3	3	15	37	51	71	135	199	271	370	325	307	309
		F	1,538	-	-	-	-	-	-	1	-	4	3	11	11	34	67	119	193	272	340	483
411	Other Acute and Subacute Forms	T	21	-	-	-	-	-	-	-	-	1	-	-	-	1	2	1	2	3	4	7
		M	8	-	-	-	-	-	-	-	-	1	-	-	-	1	1	1	2	1	1	-
		F	13	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	3	7
412	Old Myocardial Infarction	T	17	-	-	-	-	-	-	-	-	-	-	-	1	1	1	3	2	2	3	4
		M	9	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2	2	1	1	2
		F	8	-	-	-	-	-	-	-	-	-	-	-	-	1	1	1	-	1	2	2
413	Angina Pectoris	T	30	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2	4	7	1	14
		M	17	-	-	-	-	-	-	-	-	-	1	-	-	-	1	2	4	2	1	6
		F	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	-	8
414	Chronic Ischemic Heart Disease	T	4,475	-	-	-	-	-	1	4	13	16	31	57	75	137	243	354	462	619	785	1,678
		M	2,318	-	-	-	-	-	1	4	9	14	31	46	59	104	179	255	304	370	399	543
		F	2,157	-	-	-	-	-	-	-	4	2	-	11	16	33	64	99	158	249	386	1,135
415-416	Pulmonary Heart Disease	T	222	2	1	-	-	-	1	2	2	2	3	-	10	9	15	32	32	33	31	47
		M	101	1	1	-	-	-	1	-	2	1	2	-	4	4	11	15	20	12	12	15
		F	121	1	-	-	-	-	-	2	-	1	1	-	6	5	4	17	12	21	19	32
420-429	Other Forms of Heart Disease	T	3,224	8	3	3	1	2	8	12	9	12	22	31	42	78	157	224	329	444	479	1,360
		M	1,520	5	2	1	1	1	6	9	6	9	16	25	30	58	116	146	216	234	206	433
		F	1,704	3	1	2	-	1	2	3	3	3	6	6	12	20	41	78	113	210	273	927
401, 403	Hypertensive Disease (Without Mention of Heart Disease)	T	217	-	-	-	-	-	-	1	1	1	-	1	2	10	8	13	25	32	42	81
		M	80	-	-	-	-	-	-	1	-	1	-	-	1	6	5	5	14	14	18	15
		F	137	-	-	-	-	-	-	-	1	-	-	1	1	4	3	8	11	18	24	66
430-438	Cerebrovascular Disease	T	3,008	4	-	-	1	4	5	2	5	5	21	25	33	38	94	144	255	422	584	1,366
		M	1,181	2	-	-	-	2	1	-	1	3	8	12	15	22	62	80	124	205	237	407
		F	1,827	2	-	-	1	2	4	2	4	2	13	13	18	16	32	64	131	217	347	959
431	Cerebral Hemorrhage	T	286	-	-	-	-	3	3	-	1	-	2	7	11	8	19	30	46	50	42	64
		M	126	-	-	-	-	1	1	-	-	-	1	5	5	3	12	13	20	25	15	25
		F	160	-	-	-	-	2	2	-	1	-	1	2	6	5	7	17	26	25	27	39
434	Occlusion of Cerebral Arteries	T	313	-	-	-	1	1	-	-	-	1	-	3	2	4	15	9	26	40	54	157
		M	123	-	-	-	-	1	-	-	-	1	-	2	2	1	14	6	14	22	20	40
		F	190	-	-	-	1	-	-	-	-	-	-	1	-	3	1	3	12	18	34	117
440-448	Diseases of the Arteries, Arterioles and Capillaries	T	836	-	-	-	1	-	-	1	2	1	5	4	3	11	31	71	104	112	121	369
		M	424	-	-	-	1	-	-	1	-	1	4	2	3	8	21	51	68	72	59	133
		F	412	-	-	-	-	-	-	-	2	-	1	2	-	3	10	20	36	40	62	236
440	Arteriosclerosis	T	422	-	-	-	-	-	-	-	-	-	-	-	-	4	5	15	27	41	64	266
		M	176	-	-	-	-	-	-	-	-	-	-	-	-	3	4	6	17	28	31	87
		F	246	-	-	-	-	-	-	-	-	-	-	-	-	1	1	9	10	13	33	179
451-459	Diseases of Veins and Lymphatics and Other Diseases of Circulatory System	T	71	-	-	-	-	-	1	-	-	1	-	3	3	4	3	2	12	9	13	20
		M	38	-	-	-	-	-	1	-	-	1	-	3	2	2	2	2	10	6	4	5
		F	33	-	-	-	-	-	-	-	-	-	-	-	1	2	1	-	2	3	9	15

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 *	521 *	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
451	Phlebitis and Thrombophlebitis	T	15	-	-	-	-	-	-	-	-	-	-	1	-	1	1	-	3	-	3	6
		M	4	-	-	-	-	-	-	-	-	-	-	1	-	1	-	-	2	-	-	-
		F	11	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	1	-	3	6
460–519	VIII. DISEASES OF THE RESPIRATORY SYSTEM	T	3,220	15	11	6	-	-	3	5	8	12	6	24	29	56	128	224	356	483	586	1,268
		M	1,666	9	4	4	-	-	1	2	2	6	4	10	19	29	75	143	220	287	320	531
		F	1,554	6	7	2	-	-	2	3	6	6	2	14	10	27	53	81	136	196	266	737
466	Acute Bronchitis and Bronchiolitis	T	9	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	6
		M	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	2
		F	6	1	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4
480–487	Pneumonia and Influenza	T	1,538	5	7	1	-	-	-	2	4	8	5	10	6	11	21	43	85	153	303	874
		M	693	4	2	1	-	-	-	1	-	4	3	4	3	5	15	31	52	91	149	328
		F	845	1	5	-	-	-	-	1	4	4	2	6	3	6	6	12	33	62	154	546
480–486	Pneumonia	T	1,476	5	6	1	-	-	-	2	4	8	5	10	6	11	21	43	83	151	291	829
		M	668	4	2	1	-	-	-	1	-	4	3	4	3	5	15	31	52	90	145	308
		F	808	1	4	-	-	-	-	1	4	4	2	6	3	6	6	12	31	61	146	521
487	Influenza	T	62	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	2	12	45
		M	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	4	20
		F	37	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	8	25
490–491	Bronchitis, Chronic and Unspecified	T	56	-	-	-	-	-	-	-	-	-	-	-	1	2	2	6	4	5	8	28
		M	25	-	-	-	-	-	-	-	-	-	-	-	1	-	-	3	3	3	6	9
		F	31	-	-	-	-	-	-	-	-	-	-	-	-	2	2	3	1	2	2	19
492	Emphysema	T	206	-	-	-	-	-	-	-	-	-	-	2	3	8	17	27	33	52	32	32
		M	140	-	-	-	-	-	-	-	-	-	-	1	2	7	11	21	22	29	25	22
		F	66	-	-	-	-	-	-	-	-	-	-	1	1	1	6	6	11	23	7	10
493	Asthma	T	76	1	-	2	-	-	3	1	1	1	-	2	-	3	4	9	10	18	12	9
		M	34	1	-	1	-	-	1	-	-	1	-	-	-	2	2	6	5	7	5	3
		F	42	-	-	1	-	-	2	1	1	-	-	2	-	1	2	3	5	11	7	6
Residual	(460–465, 467–479, 494–519)	T	1,335	8	3	3	-	-	-	2	3	3	1	10	19	32	84	139	223	255	231	319
		M	771	4	2	2	-	-	-	1	2	1	1	5	13	15	47	82	137	157	135	167
		F	564	4	1	1	-	-	-	1	1	2	-	5	6	17	37	57	86	98	96	152
520–579	IX. DISEASES OF THE DIGESTIVE SYSTEM	T	1,088	4	2	1	-	2	2	5	7	17	31	36	37	53	89	108	122	120	142	310
		M	522	1	2	1	-	-	2	5	4	10	21	21	21	33	53	69	71	56	47	105
		F	566	3	-	-	-	2	-	-	3	7	10	15	16	20	36	39	51	64	95	205
531–533	Ulcer of the Stomach and Duodenum	T	81	-	-	-	-	-	-	-	-	1	1	-	-	2	4	4	12	11	20	26
		M	38	-	-	-	-	-	-	-	-	1	1	-	-	-	3	3	7	6	8	9
		F	43	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	5	5	12	17
540–543	Appendicitis	T	6	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	1	3
		M	2	-	-	-	-	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-
		F	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	3
550–553, 560	Hernia and Other Obstruction	T	105	1	-	1	-	-	1	-	-	-	-	1	4	1	3	2	11	8	19	53
		M	34	-	-	1	-	-	1	-	-	-	-	-	1	-	2	-	6	2	5	16
		F	71	1	-	-	-	-	-	-	-	-	-	1	3	1	1	2	5	6	14	37
571	Chronic Liver Disease and Cirrhosis	T	295	-	-	-	-	1	-	1	4	7	18	21	24	37	47	52	33	24	18	8
		M	178	-	-	-	-	-	-	1	2	3	12	11	16	25	31	31	20	14	7	5
		F	117	-	-	-	-	1	-	-	2	4	6	10	8	12	16	21	13	10	11	3
574–576	Cholelithiasis and Other Disorders of Gallbladder and Biliary Tract	T	69	-	-	-	-	-	-	-	1	-	-	-	-	-	4	5	6	10	11	32
		M	30	-	-	-	-	-	-	-	1	-	-	-	-	-	2	4	5	4	5	9
		F	39	-	-	-	-	-	-	-	-	-	-	-	-	-	2	1	1	6	6	23
Residual	(520–530, 534–539, 544–549, 554–559, 561–570, 572–573, 577–579)	T	532	3	2	-	-	1	1	4	2	8	12	14	9	13	31	44	60	67	73	188
		M	240	1	2	-	-	-	1	4	1	5	8	10	4	8	15	30	33	30	22	66
		F	292	2	-	-	-	1	-	-	1	3	4	4	5	5	16	14	27	37	51	122

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 *	521 *	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
580–629 X.	DISEASES OF THE GENITOURINARY SYSTEM	T	538	2	-	-	-	-	-	2	1	-	7	4	4	7	12	22	40	86	97	254
		M	267	1	-	-	-	-	-	2	1	-	2	1	4	7	9	9	18	46	52	115
		F	271	1	-	-	-	-	-	-	-	-	5	3	-	-	3	13	22	40	45	139
580–589	Nephritis, Nephrotic Syndrome and Nephrosis	T	301	1	-	-	-	-	-	-	1	-	5	3	4	5	7	15	24	57	59	120
		M	153	-	-	-	-	-	-	-	1	-	2	1	4	5	5	5	10	31	33	56
		F	148	1	-	-	-	-	-	-	-	-	3	2	-	-	2	10	14	26	26	64
590	Infections of the Kidney	T	24	-	-	-	-	-	-	1	-	-	-	-	-	-	1	2	4	3	-	13
		M	9	-	-	-	-	-	-	1	-	-	-	-	-	-	1	2	1	1	-	3
		F	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	2	-	10
600	Hyperplasia of the Prostate	T	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	4	8
		M	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1	2	4	8
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual	(591–599, 601–629)	T	198	1	-	-	-	-	-	1	-	-	2	1	-	2	4	5	11	24	34	113
		M	90	1	-	-	-	-	-	1	-	-	-	-	-	2	3	2	6	12	15	48
		F	108	-	-	-	-	-	-	-	-	-	2	1	-	-	1	3	5	12	19	65
630–676 XI.	COMPLICATIONS OF PREGNANCY, CHILDBIRTH AND THE PUERPERIUM	T	4	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	4	-	-	-	-	-	-	1	3	-	-	-	-	-	-	-	-	-	-	-
630–639	Pregnancy with Abortive Outcome	T	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	1	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-
640–648	Complications of Pregnancy	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Residual	(649–676)	T	3	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	3	-	-	-	-	-	-	1	2	-	-	-	-	-	-	-	-	-	-	-
680–709 XII.	DISEASES OF THE SKIN AND SUBCUTANEOUS TISSUE	T	33	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	5	4	5	17
		M	12	-	-	-	-	-	-	1	-	-	-	-	-	-	1	-	-	3	2	5
		F	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5	1	3	12
710–739 XIII.	DISEASES OF THE MUSCULOSKELETAL SYSTEM AND CONNECTIVE TISSUE	T	147	-	-	-	-	-	-	1	-	-	1	-	4	6	7	16	21	23	28	40
		M	43	-	-	-	-	-	-	1	-	-	-	-	1	5	4	6	6	8	5	7
		F	104	-	-	-	-	-	-	-	-	-	1	-	3	1	3	10	15	15	23	33
740–759 XIV.	CONGENITAL ANOMALIES	T	223 *	141 *	19	3	4	1	4	7	5	2	2	1	7	5	6	4	4	2	2	4
		M	135	87	13	2	3	1	3	3	3	2	1	1	5	3	1	-	2	2	1	2
		F	87	53	6	1	1	-	1	4	2	-	1	-	2	2	5	4	2	-	1	2
760–779 XV.	CERTAIN CONDITIONS ORIGINATING IN THE PERINATAL PERIOD	T	206	205	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	126	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	80	79	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
780–799 XVI.	SYMPTOMS, SIGNS AND ILL-DEFINED CONDITIONS	T	762	103	2	1	-	2	5	7	5	7	5	7	8	10	27	29	70	75	100	299
		M	338	64	1	-	-	2	3	5	4	6	4	4	4	8	14	17	42	43	43	74
		F	424	39	1	1	-	-	2	2	1	1	1	3	4	2	13	12	28	32	57	225
E800–E999 XVII.	INJURY AND POISONING	T	2,148	14	37	41	53	189	233	204	157	131	107	100	89	70	84	87	102	117	101	232
		M	1,447	10	19	31	31	137	182	163	124	105	67	66	67	53	63	58	62	64	57	88
		F	701	4	18	10	22	52	51	41	33	26	40	34	22	17	21	29	40	53	44	144
E800–E949	Unintentional Injury—Total	T	1,489	10	31	39	43	123	152	128	79	66	54	56	53	43	57	62	78	103	89	223
		M	948	7	17	29	23	87	113	100	65	56	39	35	41	30	43	39	42	53	48	81
		F	541	3	14	10	20	36	39	28	14	10	15	21	12	13	14	23	36	50	41	142

Table 31
DEATHS FROM SELECTED CAUSES BY AGE GROUP AND SEX
MINNESOTA RESIDENTS, 1988

9th Revision No.	Cause of Death and Sex		Total	Under 1 Year	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over
	ALL CAUSES, Total	T	35,436 *	521 *	105	75	75	220	293	319	301	389	478	606	834	1,311	2,178	3,040	4,102	4,840	5,410	10,339
		M	18,022	319	59	55	44	155	222	238	214	264	298	363	513	838	1,383	1,850	2,407	2,636	2,571	3,593
		F	17,413	201	46	20	31	65	71	81	87	125	180	243	321	473	795	1,190	1,695	2,204	2,839	6,746
E810-E825	Motor Vehicle	T	670	3	17	19	26	97	113	79	45	40	24	30	32	25	26	20	24	19	13	18
		M	450	1	10	14	12	71	80	60	35	33	15	16	24	16	15	10	12	8	9	9
		F	220	2	7	5	14	26	33	19	10	7	9	14	8	9	11	10	12	11	4	9
E880-E888	Falls	T	306	2	1	-	-	1	3	4	3	8	-	5	2	3	13	13	22	40	44	142
		M	144	2	1	-	-	-	2	3	2	7	-	5	2	2	11	7	10	24	15	51
		F	162	-	-	-	-	1	1	1	1	1	-	-	-	1	2	6	12	16	29	91
Residual	Other Unintentional Injury (800-809, 826-949)	T	513	5	13	20	17	25	36	45	31	18	30	21	19	15	18	29	32	44	32	63
		M	354	4	6	15	11	16	31	37	28	16	24	14	15	12	17	22	20	21	24	21
		F	159	1	7	5	6	9	5	8	3	2	6	7	4	3	1	7	12	23	8	42
E950-E959	Suicide and Self-Inflicted Injury	T	486	-	-	-	5	50	62	55	49	49	40	40	26	23	21	21	15	14	11	5
		M	379	-	-	-	4	39	54	49	34	37	21	28	20	19	18	17	14	11	9	5
		F	107	-	-	-	1	11	8	6	15	12	19	12	6	4	3	4	1	3	2	-
E960-E969	Homicide and Injury Purposely Inflicted by Other Persons	T	124	4	6	-	4	12	17	15	21	10	9	3	7	3	4	2	5	-	-	2
		M	82	3	2	-	3	7	13	11	18	6	5	2	4	3	1	1	2	-	-	1
		F	42	1	4	-	1	5	4	4	3	4	4	1	3	-	3	1	3	-	-	1
E970-E978	Legal Intervention	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
E980-E989	Injury Undetermined Whether Unintentionally or Purposely Inflicted	T	49	-	-	2	1	4	2	6	8	6	4	1	3	1	2	2	4	-	1	2
		M	38	-	-	2	1	4	2	3	7	6	2	1	2	1	1	1	4	-	-	1
		F	11	-	-	-	-	-	-	3	1	-	2	-	1	-	1	1	-	-	1	1
E990-E999	Injury Resulting from Operations of War	T	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		M	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
		F	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

* Includes unknown sex

Table 32
DEATHS DUE TO SELECTED CAUSES BY RACE
MINNESOTA RESIDENTS, 1988

	Total	White	Black	Indian	Other Asian and Pacific Islander	Other	Unknown
Total - All Causes	35,436	34,676	427	224	73	30	6
Infective-parasitic	418	402	14	1	1	-	-
Tuberculosis	7	7	-	-	-	-	-
Neoplasms - malignant	8,100	7,972	79	24	17	8	-
Digestive	2,035	1,998	22	8	3	4	-
Respiratory	1,879	1,844	22	7	4	2	-
Breast	771	762	6	-	2	1	-
Genital	1,023	1,005	13	2	2	1	-
Urinary	412	408	3	-	1	-	-
Leukemia	317	313	-	3	1	-	-
Diabetes mellitus	556	539	9	7	-	1	-
Major cardiovascular	15,960	15,702	148	80	19	7	4
Rheumatic	106	104	1	-	-	-	1
Hypertensive heart	169	166	2	1	-	-	-
Ischemic heart	8,177	8,058	60	42	10	4	3
Other heart	3,224	3,166	40	13	5	-	-
Hypertension	217	209	4	3	-	1	-
Cerebrovascular	3,008	2,959	27	16	4	2	-
Arteriosclerosis	422	419	2	1	-	-	-
Respiratory	3,220	3,179	20	15	2	4	-
Pneumonia	1,476	1,463	9	4	-	-	-
Influenza	62	61	-	-	-	1	-
Bronchitis	56	56	-	-	-	-	-
Emphysema	206	204	-	1	-	1	-
Asthma	76	73	2	1	-	-	-
Ulcer of stomach & duodenum	81	80	1	-	-	-	-
Hernia & intestinal obstruction	105	102	1	1	-	1	-
Chronic liver disease & cirrhosis	295	283	3	9	-	-	-
Nephritis, nephrotic syndrome & nephrosis	301	289	7	1	2	2	-
Kidney infections	24	24	-	-	—	-	-
Pregnancy, childbirth & puerperium	4	2	2	-	-	-	-
Congenital anomalies	223	207	9	3	3	1	-
Certain conditions originating in the perinatal period	206	161	27	8	8	-	2
Ill-defined	762	735	16	4	6	1	-
Other diseases	3,033	2,976	33	17	5	2	-
Unintentional injury	1,489	1,416	30	34	7	2	-
Motor vehicle	670	638	7	19	4	2	-
Falls	306	300	5	1	-	-	-
Suicide	486	468	7	8	2	1	-
Homicide	124	90	21	12	1	-	-
Other violent deaths	49	49	-	-	-	-	-

Table 33

FIFTEEN LEADING CAUSES OF DEATH, DEATH RATES PER 100,000 POPULATION AND PERCENT OF TOTAL DEATHS, MINNESOTA RESIDENTS, 1988

Cause of Death	Number of Deaths	Death Rates	Percent of Total
Heart Disease (390-398, 402, 404-429)	11,899	276.3	33.6
Cancer (Malignant Neoplasms) (140-208)	8,100	188.1	22.9
Cerebrovascular Disease (430-438)	3,008	69.8	8.5
Pneumonia and Influenza (480-487)	1,538	35.7	4.3
Pneumonia (480-486)	1,476	34.3	4.2
Influenza (487)	62	1.4	0.2
Unintentional Injury (800-949)	1,489	34.6	4.2
Motor Vehicle (810-825)	670	15.6	1.9
Falls (880-888)	306	7.1	0.9
Chronic Obstructive Pulmonary Diseases and Allied Conditions (490-496)	1,298	30.1	3.7
Diabetes Mellitus (250)	556	12.9	1.6
Suicide (950-959)	486	11.3	1.4
Arteriosclerosis (440)	422	9.8	1.2
Nephritis, Nephrotic Snydrome, and Nephrosis (580-589)	301	7.0	0.8
Chronic Liver Disease and Cirrhosis (571)	295	6.9	0.8
Congenital Anomalies (740-759)	223	5.2	0.6
Hypertensive Disease Without Mention of Heart Disease (401,403)	217	5.0	0.6
Septicemia (038)	210	4.9	0.6
Certain Conditions Originating in the Perinatal Period (760-779)	206	4.8	0.6
All Other Causes	5,188	120.5	14.6
Total - All Causes	35,436	822.8	100.0

Table 34
LEADING CAUSES OF DEATH BY SELECTED AGE GROUPS
MINNESOTA RESIDENTS, 1988

	No. of Deaths	Per-cent	Age/Cause Specific Death Rate Per 100,000 Population
1-4 Years			
Total - all causes	105	100.0	37.0
Unintentional injury	31	29.5	10.9
Motor vehicle	(17)	(16.2)	(6.0)
Congenital anomalies	19	18.1	6.7
Malignant neoplasms	10	9.5	3.5
Diseases of the nervous system	10	9.5	3.5
Pneumonia and influenza	7	6.7	2.5
5-9 Years			
Total - all causes	75	100.0	24.7
Unintentional injury	39	52.0	12.9
Motor vehicle	(19)	(25.3)	(6.3)
Malignant neoplasms	10	13.3	3.3
Diseases of the nervous system	3	4.0	1.0
Congenital anomalies	3	4.0	1.0
Diseases of the heart	3	4.0	1.0
10-14 Years			
Total - all causes	75	100.0	23.5
Unintentional injury	43	57.3	13.5
Motor vehicle	(26)	(34.7)	(8.2)
Malignant neoplasms	9	12.0	2.8
Suicide	5	6.7	1.6
Homicide	4	5.3	1.3
Congenital anomalies	4	5.3	1.3
15-19 Years			
Total - all causes	220	100.0	60.6
Unintentional injury	123	55.9	33.9
Motor vehicle	(97)	(44.1)	(26.7)
Suicide	50	22.7	13.8
Homicide	12	5.5	3.3
Malignant neoplasms	11	5.0	3.0
Cerebrovascular disease	4	1.8	1.1
20-34 Years			
Total - all causes	913	100.0	78.6
Unintentional injury	359	39.3	30.9
Motor vehicle	(237)	(26.0)	(20.4)
Suicide	166	18.2	14.3
Malignant neoplasms	87	9.5	7.5
Diseases of the heart	61	6.7	5.3
Homicide	53	5.8	4.6

	No. of Deaths	Per-cent	Age/Cause Specific Death Rate Per 100,000 Population
35-49 Years			
Total - all causes	1,473	100.0	202.4
Malignant neoplasms	432	29.3	59.4
Diseases of the heart	304	20.6	41.8
Unintentional injury	176	11.9	24.2
Motor vehicle	(94)	(6.4)	(12.9)
Suicide	129	8.8	17.7
Cerebrovascular disease	51	3.5	7.0
Chronic liver disease and cirrhosis	46	3.1	6.3
50-64 Years			
Total - all causes	4,323	100.0	785.6
Malignant neoplasms	1,759	40.7	319.7
Diseases of the heart	1,308	30.3	237.7
Cerebrovascular disease	165	3.8	30.0
Unintentional injury	153	3.5	27.8
Motor vehicle	(83)	(1.9)	(15.1)
Chronic obstructive pulmonary diseases and allied conditions	143	3.3	26.0
65-74 Years			
Total - all causes	7,142	100.0	2,422.3
Diseases of the heart	2,468	34.6	837.0
Malignant neoplasms	2,338	32.7	793.0
Cerebrovascular disease	399	5.6	135.3
Chronic obstructive pulmonary diseases and allied conditions	384	5.4	130.2
Unintentional injury	140	2.0	47.5
Motor vehicle	(44)	(0.6)	(14.9)
Pneumonia and influenza	128	1.8	43.4
75 Years and Over			
Total - all causes	20,589	100.0	8,705.2
Diseases of the heart	7,735	37.6	3,270.4
Malignant neoplasms	3,444	16.7	1,456.2
Cerebrovascular disease	2,372	11.5	1,002.9
Pneumonia and influenza	1,330	6.5	562.3
Chronic obstructive pulmonary diseases and allied conditions	750	3.6	317.1
Symptoms, signs and ill-defined conditions	474	2.3	200.4

Table 35
DEATHS DUE TO HIV INFECTION[1]
MINNESOTA RESIDENTS, 1988

Deaths Due to HIV Infection as Underlying Cause

		Age Group										
	Total	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Cause of Death												
HIV Infection with Specified Secondary Infections or Malignant Neoplasms (AIDS)	72	-	1	8	16	21	13	8	2	-	1	2
HIV Infection with Other Specified Manifestations in the Absence of Either Specified Secondary Infections or Malignant Neoplasms	-	-	-	-	-	-	-	-	-	-	-	-
Other HIV Infection	-	-	-	-	-	-	-	-	-	-	-	-
Positive Serological or Viral Culture Findings for HIV	-	-	-	-	-	-	-	-	-	-	-	-
Total All HIV Infection as Underlying Cause	72	-	1	8	16	21	13	8	2	-	1	2

HIV Infection Mentioned as Contributing Factor for Deaths Due to Other Underlying Causes

	Total	<20	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65+
Cause of Death												
Other Infective and Parasitic Diseases	6	-	1	-	1	2	-	-	-	1	-	1
Malignant Neoplasms	3	-	-	1	-	-	1	-	1	-	-	-
Diseases of the Blood and Blood-Forming Organs	2	-	-	-	-	1	-	-	-	1	-	-
Diseases of the Heart	4	-	-	1	-	-	-	-	1	1	1	-
Pneumonia	1	-	-	-	-	1	-	-	-	-	-	-
Diseases of the Digestive System	2	-	-	1	1	-	-	-	-	-	-	-
Total Other Under-Lying Causes of Death with HIV Indicated as Contributing Factor	18	-	1	3	2	4	1	-	2	3	1	1
Total Deaths with Any Mention of HIV Infection	90	-	2	11	18	25	14	8	4	3	2	3

---

[1] All etiological categories are consistent with those reported by the National Center for Health Statistics.

Table 36
ACCIDENT FATALITIES OCCURRING IN MINNESOTA*
BY ACCIDENT CATEGORY** AND AGE GROUP***
1987 - 1988

TYPE OF ACCIDENT	1987 TOTAL	1988 TOTAL	<5	5-14	15-24	25-44	45-64	65+	Unknown Age
			AGE GROUP						
TOTAL ACCIDENTAL DEATHS	1,427	1,454	41	81	274	312	194	552	-
OCCUPATIONAL DEATHS	63	35	-	-	3	19	8	5	-
Agriculture	20	7	-	-	1	1	3	2	-
Mining, quarrying, oil and gas wells	2	-	-	-	-	-	-	-	-
Construction	21	15	-	-	1	9	5	-	-
Manufacturing, logging and lumber	8	6	-	-	1	2	-	3	-
Transportation and public utilities	3	2	-	-	-	2	-	-	-
Trade	3	3	-	-	-	3	-	-	-
Service	5	1	-	-	-	1	-	-	-
Government	-	-	-	-	-	-	-	-	-
Other and unspecified industry	1	1	-	-	-	1	-	-	-
HOME DEATHS	262	270	13	25	12	45	34	141	-
Poisonings (except gas)	26	24	-	-	1	17	4	2	-
Poisonings by gases and vapors	16	10	-	-	3	4	2	1	-
Falls	115	125	1	-	1	4	12	107	-
Fires	25	52	4	12	5	11	7	13	-
Drowning	9	11	1	2	-	3	1	4	-
Suffocation, ingested food or object	8	4	-	-	-	-	1	3	-
Suffocation, mechanical	19	15	6	1	1	4	-	3	-
Firearms	7	4	-	3	-	-	1	-	-
Other and unspecified home accidents	37	25	1	7	1	2	6	8	-
MOTOR VEHICLE DEATHS	558	659	19	45	214	182	101	98	-
Injury to pedestrian	72	84	11	14	8	16	18	17	-
Injury to pedal cyclist	14	17	-	7	5	2	2	1	-
Injury to rider of animal or occupant of animal-drawn vehicle	-	-	-	-	-	-	-	-	-
Collision with railroad train	5	12	-	2	5	1	3	1	-
Collision with other motor vehicle	242	283	3	13	86	74	53	54	-
Collision with fixed object	18	33	1	1	12	17	-	2	-
Noncollision	170	176	3	4	82	59	16	12	-
Other and unspecified accidents	37	54	1	4	16	13	9	11	-
PUBLIC NON-MOTOR VEHICLE	296	280	5	11	40	54	25	145	-
Railroad (not with motor vehicle)	11	5	-	1	-	2	2	-	-
Other road vehicle (not with motor vehicle)	4	2	-	-	-	1	-	1	-
Water transportation	19	17	-	1	8	3	3	2	-
Air transportation	25	13	-	-	3	6	3	1	-
Falls	97	93	-	-	2	7	3	81	-
Fires	4	2	-	1	1	-	-	-	-
Drowning	32	41	4	5	18	10	2	2	-
Firearms	4	8	-	2	3	2	1	-	-
Other and unspecified public accidents	100	99	1	1	5	23	11	58	-
ACCIDENT TYPE UNKNOWN	248	210	4	-	5	12	26	163	-

---

* Includes only those deaths for which the accident occurred in Minnesota.

** National Safety Council categories.

*** Age group applicable to 1988 only.

Table 37
DEATHS OCCURRING IN MINNESOTA BY CAUSE AND AUTOPSY STATUS
1988

	Cause of Death	Total Deaths	Autopsy Status					
			Number			Percent		
			Performed	Not Performed	Not Stated	Performed	Not Performed	Not Stated
	Total - All Causes	35,637	4,581	26,195	4,861	12.9	73.5	13.6
I.	Infectious and parasitic diseases	427	93	295	39	21.8	69.1	9.1
II.	Neoplasms	8,303	565	6,471	1,267	6.8	77.9	15.3
III.	Endocrine, nutritional, and metabolic diseases and immunity disorders	837	94	630	113	11.2	75.3	13.5
IV.	Diseases of the blood and blood-forming organs	158	34	114	10	21.5	72.2	6.3
V.	Mental disorders	666	51	538	77	7.7	80.8	11.6
VI.	Diseases of the nervous system and sense organs	775	83	584	108	10.7	75.4	13.9
VII.	Diseases of the circulatory system	16,047	1,766	12,004	2,277	11.0	74.8	14.2
VIII.	Diseases of the respiratory system	3,229	269	2,483	477	8.3	76.9	14.8
IX.	Diseases of the digestive system	1,103	233	756	114	21.1	68.5	10.3
X.	Diseases of the genitourinary system	536	52	400	84	9.7	74.6	15.7
XI.	Complications of pregnancy, childbirth, and the puerperium	4	3	1	-	75.0	25.0	0.0
XII.	Diseases of the skin and subcutaneous tissue	32	6	23	3	18.8	71.9	9.4
XIII.	Diseases of the musculoskeletal system and connective tissue	159	20	115	24	12.6	72.3	15.1
XIV.	Congenital anomalies	255	130	103	22	51.0	40.4	8.6
XV.	Certain conditions originating in the perinatal period	210	84	100	26	40.0	47.6	12.4
XVI.	Symptoms, signs and ill-defined conditions	752	137	503	112	18.2	66.9	14.9
XVII.	Injury and poisoning	2,144	961	1,075	108	44.8	50.1	5.0

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

	—	State	Aitkin	Anoka	Becker	Beltrami	Benton	Big Stone	Blue Earth
DEATHS - Total		35,436	167	990	300	298	262	104	424
Rate:	Age & sex adjusted	8.2	7.3	10.2	8.2	9.1	12.0	9.0	8.2
Rate:	Sex adjusted-age specific								
	Under 5 years	1.8	0.0	1.6	4.3	2.5	1.4	0.0	1.8
	5-14 years	0.2	0.0	0.1	0.0	0.2	0.2	0.0	0.6
	15-24 years	0.7	0.5	0.9	0.7	1.1	0.9	0.8	0.4
	25-44 years	1.2	1.3	0.8	1.0	1.7	1.8	1.8	1.6
	45-64 years	6.6	5.2	7.1	6.2	7.6	5.8	7.4	8.4
	65 years and over	52.2	48.0	68.6	51.7	55.6	82.3	56.8	48.2
Sex:	Male	18,022	99	541	176	169	133	49	198
	Female	17,413	68	449	124	129	129	55	226
	Unknown	1		-	-	-	-	-	-
Race:	White	34,676	166	981	287	262	258	104	424
	Black	427	-	3	-	-	2	-	-
	Indian	224	-	1	13	36	1	-	-
	Other & unknown	109	1	5	-	-	1	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	418	-	5	1	1	3	3	3
010-018	Tuberculosis	7	-	-	1	-	-	-	-
140-208	Neoplasms-malignant	8,100	42	244	65	67	49	19	115
150-159	Digestive	2,035	7	44	21	16	14	6	27
160-165	Respiratory	1,879	14	76	14	16	6	3	26
174-175	Breast	771	7	17	2	3	2	3	14
179-187	Genital	1,023	8	24	10	12	7	2	10
188-189	Urinary	412	3	10	5	5	4	1	3
204-208	Leukemia	317	-	9	2	6	4	-	2
250	Diabetes mellitus	556	-	23	5	5	2	2	11
390-448	Major cardiovascular	15,960	89	404	129	135	132	55	181
390-398	Rheumatic heart	106	-	1	-	-	1	1	-
402,404	Hypertensive heart	169	-	5	2	3	3	-	1
410-414	Ischemic heart	8,177	62	206	61	64	58	26	94
420-429	Other heart	3,224	7	76	26	26	36	13	37
400-401, & 403	Hypertension	217	1	4	-	2	1	1	2
430-438	Cerebrovascular	3,008	16	69	25	26	23	10	37
440	Arteriosclerosis	422	3	30	6	6	8	1	5
460-519	Respiratory	3,220	13	91	24	40	25	6	32
480-486	Pneumonia	1,476	7	35	11	16	13	3	12
487	Influenza	62	-	1	-	4	2	-	2
490-491	Bronchitis	56	-	1	-	-	-	-	-
492	Emphysema	206	-	8	1	1	1	2	-
493	Asthma	76	-	2	1	2	2	-	2
531-533	Ulcer of stomach and duodenum	81	-	4	2	1	-	-	2
550-553, & 560	Hernia & intestinal obstruction	105	-	1	2	-	-	1	-
571	Chronic liver disease and cirrhosis	295	1	14	2	1	-	1	4
580-589	Nephritis, nephrotic syndrome & nephrosis	301	-	11	4	-	-	2	2
590	Kidney infection	24	-	-	-	-	2	-	1
630-676	Pregnancy, childbirth & puerperium	4	-	-	-	-	-	-	-
740-759	Congenital anomalies	223	1	10	1	3	2	-	4
760-779	Perinatal conditions	206	-	8	1	3	1	-	1
780-799	Ill-defined	762	1	18	7	1	5	1	7
Residual	Other diseases	3,033	9	70	35	18	21	12	36
E800-949	Unintentional injury	1,489	8	50	18	20	11	2	21
E810-825	Motor vehicle	670	1	25	9	8	5	1	7
E880-888	Falls	306	2	7	3	1	1	-	-
E950-959	Suicide & self-inflicted injury	486	2	28	4	2	6	-	4
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	124	1	3	-	1	2	-	-
E980-999	Other violent deaths	49	-	6	-	-	1	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Brown	Carlton	Carver	Cass	Chippewa	Chisago	Clay	Clear-water
DEATHS - Total		309	317	238	267	196	270	341	103
Rate:	Age & sex adjusted	8.4	8.9	7.6	8.7	9.8	9.1	7.4	8.5
Rate:	Sex adjusted-age specific								
	Under 5 years	1.8	0.9	1.0	4.4	1.7	1.0	2.9	2.7
	5-14 years	0.0	0.2	0.1	0.0	0.0	0.2	0.5	0.6
	15-24 years	1.0	1.0	0.6	1.8	1.9	1.2	0.2	0.7
	25-44 years	1.4	1.1	1.3	1.6	1.1	1.6	1.5	1.3
	45-64 years	7.7	6.2	5.0	7.0	4.8	7.9	5.0	8.4
	65 years and over	51.1	58.1	50.0	50.8	66.1	55.7	46.9	50.3
Sex:	Male	159	169	145	153	93	145	169	60
	Female	150	148	93	114	103	125	172	43
	Unknown	-	-	-	-	-	-	-	-
Race:	White	309	312	238	248	196	270	340	101
	Black	-	-	-	1	-	-	-	-
	Indian	-	5	-	18	-	-	1	2
	Other & unknown	-	-	-	-	-	-	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	2	3	3	4	2	-	6	1
010-018	Tuberculosis	-	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	59	67	60	61	40	59	79	23
150-159	Digestive	17	19	18	18	10	12	25	4
160-165	Respiratory	13	15	7	18	10	13	15	4
174-175	Breast	4	3	5	4	2	7	5	5
179-187	Genital	9	12	13	9	4	9	13	1
188-189	Urinary	3	1	2	-	5	5	3	1
204-208	Leukemia	4	3	-	1	2	1	4	2
250	Diabetes mellitus	7	5	3	2	1	7	3	1
390-448	Major cardiovascular	167	165	108	119	89	114	154	48
390-398	Rheumatic heart	-	1	-	1	4	-	-	1
402,404	Hypertensive heart	1	2	-	1	4	2	1	-
410-414	Ischemic heart	100	90	77	54	35	53	61	26
420-429	Other heart	30	27	9	29	22	33	49	3
400-401, & 403	Hypertension	2	3	-	3	-	1	3	-
430-438	Cerebrovascular	25	19	14	16	21	20	30	16
440	Arteriosclerosis	4	18	6	5	1	1	5	1
460-519	Respiratory	25	32	17	27	24	29	22	14
480-486	Pneumonia	13	18	9	14	12	17	9	3
487	Influenza	1	2	-	2	4	2	1	-
490-491	Bronchitis	1	2	1	-	-	2	1	-
492	Emphysema	3	1	2	-	1	2	1	1
493	Asthma	-	1	-	1	1	-	-	-
531-533	Ulcer of stomach and duodenum	-	-	1	-	-	-	1	1
550-553, & 560	Hernia & intestinal obstruction	1	1	1	2	-	1	4	-
571	Chronic liver disease and cirrhosis	1	-	2	-	2	1	1	1
580-589	Nephritis, nephrotic syndrome & nephrosis	3	1	2	4	2	2	3	-
590	Kidney infection	-	-	-	-	-	-	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-	-
740-759	Congenital anomalies	2	1	3	1	-	-	3	1
760-779	Perinatal conditions	2	-	-	2	-	2	4	1
780-799	Ill-defined	2	2	4	8	-	4	5	1
Residual	Other diseases	21	20	18	20	23	28	34	5
E800-949	Unintentional injury	12	14	13	14	12	15	17	4
E810-825	Motor vehicle	8	6	9	8	4	7	8	1
E880-888	Falls	1	2	-	1	4	3	1	1
E950-959	Suicide & self-inflicted injury	5	6	3	2	1	7	5	2
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	-	1	-	1	-	-
E980-999	Other violent deaths	-	-	-	-	-	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Cook	Cotton-wood	Crow Wing	Dakota	Dodge	Douglas	Faribault	Fill-more
DEATHS - Total		34	150	475	1,089	144	322	238	282
Rate:	Age & sex adjusted	6.9	6.9	7.8	8.3	9.0	8.0	8.5	8.9
Rate:	Sex adjusted-age specific								
	Under 5 years	3.5	0.0	1.1	1.4	1.3	0.4	2.7	2.3
	5-14 years	1.6	0.5	0.2	0.3	0.0	0.0	0.0	0.3
	15-24 years	1.9	1.1	0.6	0.5	1.3	0.6	0.4	1.3
	25-44 years	1.5	0.3	1.4	0.8	1.8	1.2	1.5	1.8
	45-64 years	8.3	3.7	7.7	4.5	6.6	6.0	6.9	7.9
	65 years and over	33.4	47.8	47.2	57.0	56.4	52.6	53.5	53.2
Sex:	Male	19	79	259	559	72	159	121	146
	Female	15	71	216	529	72	163	117	136
	Unknown	-	-	-	1	-	-	-	-
Race:	White	28	149	473	1,078	144	322	238	282
	Black	-	-	1	3	-	-	-	-
	Indian	4	-	1	3	-	-	-	-
	Other & unknown	2	1	-	5	-	-	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	-	1	3	5	2	4	1	2
010-018	Tuberculosis	-	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	8	32	125	272	34	59	66	56
150-159	Digestive	2	8	32	68	8	10	13	16
160-165	Respiratory	2	4	35	69	9	11	13	9
174-175	Breast	-	3	9	31	-	4	4	5
179-187	Genital	2	8	16	34	12	14	10	8
188-189	Urinary	1	2	6	14	-	4	5	3
204-208	Leukemia	1	1	5	8	1	1	5	2
250	Diabetes mellitus	-	4	4	22	-	1	2	3
390-448	Major cardiovascular	12	80	231	437	64	178	108	138
390-398	Rheumatic heart	-	1	2	2	-	-	1	3
402,404	Hypertensive heart	-	1	4	5	-	1	1	3
410-414	Ischemic heart	6	59	104	232	33	100	58	85
420-429	Other heart	2	6	55	77	11	42	28	17
400-401, & 403	Hypertension	1	-	2	10	-	2	-	2
430-438	Cerebrovascular	2	10	41	83	17	29	18	13
440	Arteriosclerosis	-	1	2	10	1	1	1	14
460-519	Respiratory	3	10	34	100	9	27	24	25
480-486	Pneumonia	2	6	16	34	2	10	9	8
487	Influenza	-	-	-	2	-	1	-	-
490-491	Bronchitis	-	-	1	-	1	-	1	-
492	Emphysema	-	2	1	6	2	-	2	2
493	Asthma	-	1	-	1	-	-	-	1
531-533	Ulcer of stomach and duodenum	-	-	-	4	-	-	1	1
550-553, & 560	Hernia & intestinal obstruction	2	-	-	3	-	-	-	-
571	Chronic liver disease and cirrhosis	-	1	3	6	-	3	2	-
580-589	Nephritis, nephrotic syndrome & nephrosis	1	-	5	10	-	4	-	-
590	Kidney infection	-	-	-	-	-	1	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-	-
740-759	Congenital anomalies	1	-	1	11	2	-	1	2
760-779	Perinatal conditions	-	-	2	12	-	-	1	-
780-799	Ill-defined	2	1	4	25	4	13	2	6
Residual	Other diseases	4	18	32	96	17	15	27	27
E800-949	Unintentional injury	1	2	21	55	9	14	2	17
E810-825	Motor vehicle	-	1	13	29	5	9	2	7
E880-888	Falls	-	-	4	8	2	1	-	5
E950-959	Suicide & self-inflicted injury	-	1	6	25	1	2	1	5
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	3	3	2	1	-	-
E980-999	Other violent deaths	-	-	1	3	-	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Freeborn	Goodhue	Grant	Hennepin	Minne-eapolis	Houston	Hubbard
DEATHS - Total		379	426	92	7,781	3,853	199	153
Rate:	Age & sex adjusted	8.5	8.9	7.6	8.2	9.1	8.5	7.7
Rate:	Sex adjusted-age specific							
	Under 5 years	3.8	1.4	2.2	2.3	3.5	3.1	2.7
	5-14 years	0.2	0.3	0.0	0.2	0.3	0.0	0.0
	15-24 years	0.7	0.7	0.0	0.6	0.8	1.3	2.3
	25-44 years	1.2	1.3	0.0	1.3	2.1	0.9	1.5
	45-64 years	6.3	5.5	6.5	7.0	9.7	6.0	9.8
	65 years and over	53.3	58.6	50.8	50.5	51.1	54.5	40.1
Sex:	Male	181	215	59	3,729	1,833	116	85
	Female	198	211	33	4,052	2,020	83	68
	Unknown	-	-	-	-	-	-	-
Race:	White	379	422	92	7,407	3,521	195	152
	Black	-	-	-	268	247	-	-
	Indian	-	2	-	69	66	2	1
	Other & unknown	-	2	-	37	19	2	-
ICDA**	CAUSE OF DEATH							
001-139	Infective-parasitic	4	2	-	156	98	2	1
010-018	Tuberculosis	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	77	87	25	1,836	801	33	34
150-159	Digestive	25	21	10	442	203	14	9
160-165	Respiratory	11	17	4	459	209	9	9
174-175	Breast	9	12	-	197	65	3	3
179-187	Genital	12	14	4	207	94	3	3
188-189	Urinary	5	7	1	100	38	3	1
204-208	Leukemia	1	6	1	59	24	-	1
250	Diabetes mellitus	6	13	1	125	57	-	2
390-448	Major cardiovascular	191	214	44	3,209	1,614	87	54
390-398	Rheumatic heart	2	3	-	22	12	-	1
402,404	Hypertensive heart	8	3	-	25	15	2	-
410-414	Ischemic heart	89	103	31	1,651	813	48	29
420-429	Other heart	53	43	4	539	283	13	9
400-401, & 403	Hypertension	2	2	-	74	44	-	2
430-438	Cerebrovascular	29	46	8	673	328	19	9
440	Arteriosclerosis	5	7	-	64	32	1	1
460-519	Respiratory	35	27	4	687	341	29	21
480-486	Pneumonia	16	11	2	309	157	13	18
487	Influenza	-	-	-	5	1	3	-
490-491	Bronchitis	-	-	-	15	6	-	-
492	Emphysema	3	5	-	31	14	3	-
493	Asthma	-	1	-	17	9	-	-
531-533	Ulcer of stomach and duodenum	-	1	-	14	8	-	-
550-553, & 560	Hernia & intestinal obstruction	1	2	-	19	10	2	1
571	Chronic liver disease and cirrhosis	1	1	1	76	43	2	-
580-589	Nephritis, nephrotic syndrome & nephrosis	1	2	3	65	33	4	2
590	Kidney infection	1	-	-	6	4	-	1
630-676	Pregnancy, childbirth & puerperium	-	-	-	1	1	-	-
740-759	Congenital anomalies	2	1	-	58	25	-	2
760-779	Perinatal conditions	1	1	1	66	36	1	1
780-799	Ill-defined	2	5	1	174	100	2	10
Residual	Other diseases	35	47	11	746	392	22	17
E800-949	Unintentional injury	18	17	1	340	165	14	5
E810-825	Motor vehicle	12	10	-	121	49	8	2
E880-888	Falls	2	2	1	117	58	2	-
E950-959	Suicide & self-inflicted injury	4	4	-	133	68	1	1
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	1	-	59	52	-	1
E980-999	Other violent deaths	-	1	-	11	5	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Isanti	Itasca	Jackson	Kanabec	Kandiyohi	Kittson	Koochiching	Lac Qui Parle
DEATHS - Total		217	446	115	130	337	79	169	129
Rate:	Age & sex adjusted	10.0	8.9	6.9	9.2	7.5	8.7	8.7	8.8
Rate:	Sex adjusted-age specific								
	Under 5 years	1.2	1.4	0.0	0.9	0.9	3.7	0.0	1.2
	5-14 years	0.4	0.6	0.6	0.4	0.0	0.0	0.8	0.0
	15-24 years	1.9	0.8	0.5	0.0	0.7	2.4	0.8	1.4
	25-44 years	1.7	1.0	1.2	1.2	1.5	3.0	1.3	1.8
	45-64 years	6.0	8.4	4.5	6.7	5.6	8.7	8.4	8.9
	65 years and over	64.4	54.7	45.7	61.2	48.0	45.4	53.3	51.8
Sex:	Male	106	238	58	74	185	57	98	68
	Female	111	208	57	56	152	22	71	61
	Unknown	-	-	-	-	-	-	-	-
Race:	White	217	435	115	129	337	79	168	128
	Black	-	-	-	-	-	-	-	-
	Indian	-	11	-	-	-	-	1	1
	Other & unknown	-	-	-	1	-	-	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	1	4	1	1	6	-	1	1
010-018	Tuberculosis	-	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	45	102	27	34	83	17	40	29
150-159	Digestive	11	26	5	11	19	3	12	7
160-165	Respiratory	8	29	5	9	14	5	15	5
174-175	Breast	5	9	2	2	10	-	1	5
179-187	Genital	3	9	3	-	12	5	2	1
188-189	Urinary	-	4	-	2	4	1	2	2
204-208	Leukemia	3	5	2	-	2	-	1	-
250	Diabetes mellitus	1	6	-	2	8	1	1	-
390-448	Major cardiovascular	105	205	53	65	148	39	89	58
390-398	Rheumatic heart	-	2	1	-	1	-	-	-
402,404	Hypertensive heart	-	3	1	-	-	-	1	-
410-414	Ischemic heart	38	115	26	36	81	20	49	35
420-429	Other heart	23	26	11	11	31	7	18	10
400-401, & 403	Hypertension	2	2	1	-	1	-	-	-
430-438	Cerebrovascular	36	43	11	15	31	7	16	9
440	Arteriosclerosis	3	6	-	2	-	-	1	2
460-519	Respiratory	21	44	10	10	26	4	18	16
480-486	Pneumonia	12	21	3	4	11	2	7	8
487	Influenza	4	2	-	-	-	-	-	3
490-491	Bronchitis	1	3	1	-	-	-	-	-
492	Emphysema	-	2	-	-	2	-	2	-
493	Asthma	1	1	-	-	-	-	1	-
531-533	Ulcer of stomach and duodenum	-	-	-	-	-	-	2	1
550-553, & 560	Hernia & intestinal obstruction	1	1	-	-	-	-	-	3
571	Chronic liver disease and cirrhosis	1	2	-	2	6	1	2	-
580-589	Nephritis, nephrotic syndrome & nephrosis	6	1	1	1	2	2	-	1
590	Kidney infection	-	-	-	-	-	-	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-	-
740-759	Congenital anomalies	2	3	-	-	-	-	1	-
760-779	Perinatal conditions	1	3	-	1	1	2	-	-
780-799	Ill-defined	4	13	7	5	10	1	1	1
Residual	Other diseases	15	36	8	2	24	6	10	14
E800-949	Unintentional injury	8	17	7	2	18	2	4	4
E810-825	Motor vehicle	6	7	1	1	10	1	1	2
E880-888	Falls	1	6	4	1	2	-	-	-
E950-959	Suicide & self-inflicted injury	5	6	1	4	2	2	-	1
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	1	2	-	-	1	2	-	-
E980-999	Other violent deaths	-	1	-	1	2	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Lake	Lake of the Woods	Le Sueur	Lincoln	Lyon	McLeod	Mahnomen	Marshall
DEATHS - Total		88	39	251	112	231	287	51	119
Rate:	Age & sex adjusted	6.3	7.6	8.6	8.9	7.6	8.1	7.1	7.4
Rate:	Sex adjusted-age specific								
	Under 5 years	1.4	0.0	1.0	3.8	0.4	1.4	4.4	2.9
	5-14 years	0.6	2.0	0.3	0.0	0.5	0.2	2.7	0.0
	15-24 years	0.0	1.9	0.6	0.0	0.0	1.1	1.1	1.2
	25-44 years	0.0	1.0	0.5	1.8	0.5	1.7	0.0	1.0
	45-64 years	2.8	8.9	7.1	5.6	6.5	5.7	10.4	6.4
	65 years and over	45.4	41.9	56.9	57.2	50.7	51.0	35.6	44.7
Sex:	Male	51	16	128	68	119	147	33	61
	Female	37	23	123	44	112	140	18	58
	Unknown	-	-	-	-	-	-	-	-
Race:	White	88	39	250	112	231	287	42	119
	Black	-	-	-	-	-	-	-	-
	Indian	-	-	-	-	-	-	9	-
	Other & unknown	-	-	1	-	-	-	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	-	-	1	2	2	1	-	-
010-018	Tuberculosis	-	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	28	7	44	24	54	51	12	25
150-159	Digestive	4	3	13	3	15	19	2	7
160-165	Respiratory	9	1	7	8	11	7	4	6
174-175	Breast	2	-	4	2	4	8	-	1
179-187	Genital	3	-	9	1	7	4	2	6
188-189	Urinary	2	1	2	1	3	1	-	1
204-208	Leukemia	-	1	2	1	3	2	1	-
250	Diabetes mellitus	2	2	5	-	1	6	1	2
390-448	Major cardiovascular	37	17	144	57	122	151	21	57
390-398	Rheumatic heart	-	-	-	-	1	-	-	-
402,404	Hypertensive heart	-	-	-	-	-	-	1	-
410-414	Ischemic heart	12	15	81	30	71	70	8	26
420-429	Other heart	8	2	29	11	17	35	6	7
400-401, & 403	Hypertension	-	-	-	-	3	1	2	-
430-438	Cerebrovascular	13	-	22	13	25	30	3	21
440	Arteriosclerosis	1	-	4	1	-	4	1	-
460-519	Respiratory	9	4	23	7	19	24	3	11
480-486	Pneumonia	7	2	11	4	7	11	1	6
487	Influenza	-	-	-	2	-	1	-	-
490-491	Bronchitis	-	-	-	-	1	-	-	1
492	Emphysema	1	-	1	-	1	1	1	-
493	Asthma	-	-	-	-	2	1	-	-
531-533	Ulcer of stomach and duodenum	-	-	-	-	1	-	-	-
550-553, & 560	Hernia & intestinal obstruction	-	-	2	1	1	1	-	-
571	Chronic liver disease and cirrhosis	3	-	2	-	2	-	-	1
580-589	Nephritis, nephrotic syndrome & nephrosis	-	1	1	-	2	4	1	2
590	Kidney infection	-	-	-	-	-	1	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-	-
740-759	Congenital anomalies	1	-	1	1	-	2	1	3
760-779	Perinatal conditions	-	-	-	-	-	1	1	-
780-799	Ill-defined	-	-	3	1	1	4	-	2
Residual	Other diseases	7	2	17	16	19	21	5	6
E800-949	Unintentional injury	1	5	8	3	3	17	5	8
E810-825	Motor vehicle	-	2	4	3	3	8	3	4
E880-888	Falls	-	1	3	-	-	2	-	2
E950-959	Suicide & self-inflicted injury	-	-	-	-	4	3	-	2
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	-	-	-	-	1	-
E980-999	Other violent deaths	-	1	-	-	-	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Martin	Meeker	Mille Lacs	Morrison	Mower	Murray	Nicollet
DEATHS - Total		266	229	201	290	435	107	188
Rate:	Age & sex adjusted	8.1	8.6	7.7	8.0	7.6	7.3	7.9
Rate:	Sex adjusted-age specific							
	Under 5 years	2.5	2.6	0.5	1.0	1.7	1.2	0.9
	5-14 years	0.0	0.0	0.0	0.0	0.2	0.0	0.9
	15-24 years	0.6	0.6	1.1	1.2	0.4	1.3	0.4
	25-44 years	1.5	1.3	1.5	0.7	0.9	1.2	0.8
	45-64 years	6.4	5.2	6.6	8.8	5.9	5.6	4.3
	65 years and over	50.2	56.8	47.9	48.6	49.1	45.7	53.7
Sex:	Male	135	126	102	158	212	55	92
	Female	131	103	99	132	223	52	96
	Unknown	-	-	-	-	-	-	-
Race:	White	266	229	195	289	435	107	188
	Black	-	-	-	-	-	-	-
	Indian	-	-	6	-	-	-	-
	Other & unknown	-	-	-	1	-	-	-
ICDA**	CAUSE OF DEATH							
001-139	Infective-parasitic	1	5	-	3	3	2	3
010-018	Tuberculosis	-	-	-	1	-	-	-
140-208	Neoplasms-malignant	47	41	43	69	104	25	51
150-159	Digestive	16	15	17	14	33	7	5
160-165	Respiratory	8	3	7	13	20	7	8
174-175	Breast	4	7	1	11	16	2	13
179-187	Genital	7	4	2	6	9	3	5
188-189	Urinary	1	2	2	3	2	-	3
204-208	Leukemia	-	1	1	6	8	2	3
250	Diabetes mellitus	5	5	4	5	7	4	2
390-448	Major cardiovascular	142	123	80	138	189	49	73
390-398	Rheumatic heart	1	-	1	-	3	-	-
402,404	Hypertensive heart	2	1	-	1	-	2	3
410-414	Ischemic heart	93	63	39	60	74	28	34
420-429	Other heart	24	20	19	42	62	6	17
400-401, & 403	Hypertension	3	1	-	-	3	1	1
430-438	Cerebrovascular	16	20	13	28	35	10	15
440	Arteriosclerosis	-	6	3	2	2	1	3
460-519	Respiratory	25	17	23	29	46	13	15
480-486	Pneumonia	12	9	10	11	24	8	8
487	Influenza	1	-	1	-	-	-	-
490-491	Bronchitis	-	-	-	-	-	-	-
492	Emphysema	2	1	1	2	4	1	3
493	Asthma	1	-	-	-	3	-	-
531-533	Ulcer of stomach and duodenum	1	-	1	-	1	-	1
550-553, & 560	Hernia & intestinal obstruction	2	-	1	1	1	1	-
571	Chronic liver disease and cirrhosis	-	1	-	3	5	-	3
580-589	Nephritis, nephrotic syndrome & nephrosis	2	2	4	5	2	-	2
590	Kidney infection	2	-	-	-	-	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-
740-759	Congenital anomalies	1	1	2	1	1	-	1
760-779	Perinatal conditions	3	1	-	1	3	1	1
780-799	Ill-defined	1	4	8	3	24	-	10
Residual	Other diseases	25	17	25	17	32	6	13
E800-949	Unintentional injury	9	12	9	14	9	6	12
E810-825	Motor vehicle	3	9	-	5	5	3	5
E880-888	Falls	2	1	1	2	2	1	2
E950-959	Suicide & self-inflicted injury	-	-	-	1	6	-	1
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	-	-	2	-	-
E980-999	Other violent deaths	-	-	1	-	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Nobles	Norman	Olmsted	Otter Tail	Penn-ington	Pine	Pipe-stone	Polk
DEATHS - Total		200	126	614	583	156	237	135	349
Rate:	Age & sex adjusted	6.9	9.6	7.3	7.9	8.9	8.9	8.2	7.9
Rate:	Sex adjusted-age specific								
	Under 5 years	0.0	3.2	1.2	2.4	1.0	2.9	2.3	1.5
	5-14 years	0.3	0.0	0.5	0.2	0.0	1.2	0.0	0.4
	15-24 years	0.6	0.9	0.9	0.6	0.4	0.6	1.2	0.9
	25-44 years	0.8	2.1	0.8	1.3	0.8	0.9	1.6	1.6
	45-64 years	6.2	8.2	4.8	5.4	6.8	7.8	4.6	5.4
	65 years and over	43.7	58.0	48.1	50.2	59.1	54.7	52.8	50.1
Sex:	Male	115	77	295	330	81	135	64	174
	Female	85	49	319	253	75	102	71	175
	Unknown	-	-	-	-	-	-	-	-
Race:	White	200	126	608	579	156	234	133	345
	Black	-	-	-	2	-	-	-	-
	Indian	-	-	-	1	-	3	1	4
	Other & unknown	-	-	6	1	-	-	1	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	-	-	3	8	2	2	2	5
010-018	Tuberculosis	-	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	36	29	152	136	23	43	20	77
150-159	Digestive	11	5	33	34	7	15	6	23
160-165	Respiratory	5	9	32	22	5	7	5	12
174-175	Breast	4	3	17	15	2	4	-	6
179-187	Genital	5	6	18	21	3	3	-	10
188-189	Urinary	2	-	8	8	2	-	1	6
204-208	Leukemia	1	-	11	6	1	2	1	6
250	Diabetes mellitus	9	4	7	7	1	1	1	6
390-448	Major cardiovascular	97	64	268	272	89	116	78	171
390-398	Rheumatic heart	1	1	2	1	-	2	-	-
402,404	Hypertensive heart	-	-	-	1	-	1	-	2
410-414	Ischemic heart	66	38	157	148	50	52	37	80
420-429	Other heart	11	10	36	61	21	30	23	32
400-401, & 403	Hypertension	3	2	2	3	1	2	-	4
430-438	Cerebrovascular	13	10	49	41	14	17	10	38
440	Arteriosclerosis	-	-	4	7	-	7	6	7
460-519	Respiratory	22	11	46	56	15	26	10	24
480-486	Pneumonia	7	1	23	35	3	8	4	13
487	Influenza	-	-	-	-	-	1	-	-
490-491	Bronchitis	2	-	5	-	-	-	-	-
492	Emphysema	4	3	2	3	-	3	2	2
493	Asthma	-	1	-	-	-	-	-	1
531-533	Ulcer of stomach and duodenum	1	-	3	2	-	-	-	2
550-553, & 560	Hernia & intestinal obstruction	1	-	3	1	-	-	2	2
571	Chronic liver disease and cirrhosis	2	-	7	5	1	3	1	2
580-589	Nephritis, nephrotic syndrome & nephrosis	2	1	3	6	3	-	1	3
590	Kidney infection	-	-	-	-	-	-	-	1
630-676	Pregnancy, childbirth & puerperium	-	-	1	-	-	-	-	-
740-759	Congenital anomalies	-	-	4	2	-	1	-	-
760-779	Perinatal conditions	-	1	3	5	-	-	1	1
780-799	Ill-defined	-	-	1	8	5	8	3	5
Residual	Other diseases	23	10	61	55	11	15	8	32
E800-949	Unintentional injury	6	6	30	15	5	14	6	15
E810-825	Motor vehicle	2	3	15	5	3	7	3	10
E880-888	Falls	2	-	10	3	-	1	2	1
E950-959	Suicide & self-inflicted injury	1	-	15	5	-	3	2	2
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	6	-	1	1	-	1
E980-999	Other violent deaths	-	-	1	-	-	4	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Pope	Ramsey	St. Paul	Red Lake	Redwood	Renville	Rice	Rock
DEATHS - Total		151	4,055	2,700	56	214	251	369	100
Rate:	Age & sex adjusted	9.0	8.4	8.3	7.8	8.1	9.2	8.0	7.1
Rate:	Sex adjusted-age specific								
	Under 5 years	1.0	2.2	2.8	0.0	2.8	1.9	1.3	0.0
	5-14 years	0.0	0.3	0.3	0.0	0.0	0.0	0.0	0.7
	15-24 years	0.7	0.4	0.4	0.0	1.5	1.1	1.1	0.7
	25-44 years	2.3	1.4	1.6	0.9	0.7	0.9	1.1	1.2
	45-64 years	9.1	7.0	7.5	2.5	7.2	4.9	4.7	4.5
	65 years and over	52.8	52.6	50.4	57.3	49.6	62.7	53.4	46.4
Sex:	Male	73	1,869	1,237	32	117	125	199	55
	Female	78	2,186	1,463	24	97	126	170	45
	Unknown	-	-	-	-	-	-	-	-
Race:	White	151	3,867	2,530	56	213	251	369	100
	Black	-	143	132	-	-	-	-	-
	Indian	-	13	11	-	1	-	-	-
	Other & unknown	-	32	27	-	-	-	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	-	58	41	-	-	-	6	3
010-018	Tuberculosis	-	1	1	-	-	-	-	-
140-208	Neoplasms-malignant	35	930	592	9	41	43	90	25
150-159	Digestive	9	219	142	2	10	8	18	9
160-165	Respiratory	6	239	145	2	9	10	27	2
174-175	Breast	4	101	61	1	2	2	6	3
179-187	Genital	4	102	67	1	5	13	13	3
188-189	Urinary	2	41	26	3	4	1	4	1
204-208	Leukemia	1	39	26	-	3	2	4	1
250	Diabetes mellitus	3	47	29	2	2	5	7	-
390-448	Major cardiovascular	72	1,766	1,194	34	117	139	167	52
390-398	Rheumatic heart	-	15	7	-	-	-	2	-
402,404	Hypertensive heart	-	28	22	-	-	1	4	1
410-414	Ischemic heart	36	905	593	16	51	78	71	26
420-429	Other heart	18	330	240	10	30	24	38	4
400-401, & 403	Hypertension	1	25	21	1	-	3	4	-
430-438	Cerebrovascular	13	337	227	5	29	26	39	15
440	Arteriosclerosis	-	55	33	1	4	4	2	2
460-519	Respiratory	20	371	240	3	18	21	26	9
480-486	Pneumonia	13	170	98	2	9	13	9	5
487	Influenza	-	-	-	-	-	-	1	-
490-491	Bronchitis	1	2	1	-	-	-	1	-
492	Emphysema	2	21	15	-	3	2	1	-
493	Asthma	1	6	5	-	-	1	1	1
531-533	Ulcer of stomach and duodenum	-	11	4	-	2	4	-	1
550-553, & 560	Hernia & intestinal obstruction	-	15	11	-	-	1	1	-
571	Chronic liver disease and cirrhosis	1	41	27	-	1	1	3	-
580-589	Nephritis, nephrotic syndrome & nephrosis	-	30	24	1	3	3	6	2
590	Kidney infection	-	3	1	-	-	1	1	-
630-676	Pregnancy, childbirth & puerperium	-	1	1	-	-	-	-	-
740-759	Congenital anomalies	1	32	17	-	1	-	1	-
760-779	Perinatal conditions	-	26	22	-	3	-	2	-
780-799	Ill-defined	3	135	106	1	2	3	4	-
Residual	Other diseases	9	376	253	4	14	14	30	5
E800-949	Unintentional injury	6	128	87	2	9	12	20	3
E810-825	Motor vehicle	4	43	24	1	4	5	9	2
E880-888	Falls	1	24	17	-	4	4	3	-
E950-959	Suicide & self-inflicted injury	1	62	32	-	1	3	5	-
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	20	17	-	-	-	-	-
E980-999	Other violent deaths	-	3	2	-	-	1	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Roseau	St. Louis	Duluth	Scott	Sherburne	Sibley	Stearns
DEATHS - Total		126	2,251	1,082	300	237	170	669
Rate:	Age & sex adjusted	7.5	9.0	9.6	9.1	9.8	8.6	6.4
Rate:	Sex adjusted-age specific							
	Under 5 years	3.8	1.8	2.5	1.5	1.4	3.8	1.3
	5-14 years	0.4	0.2	0.0	0.3	0.3	0.4	0.2
	15-24 years	1.3	0.6	0.5	1.0	0.8	1.7	0.4
	25-44 years	1.0	1.1	1.2	0.8	0.9	0.5	0.6
	45-64 years	7.7	9.0	10.3	5.2	6.3	5.7	5.5
	65 years and over	42.9	55.0	57.7	61.5	66.3	54.9	40.7
Sex:	Male	69	1,134	502	160	116	95	369
	Female	57	1,117	580	140	121	75	300
	Unknown	-	-	-	-	-	-	-
Race:	White	126	2,234	1,074	300	237	169	668
	Black	-	3	2	-	-	1	-
	Indian	-	11	4	-	-	-	-
	Other & unknown	-	3	2	-	-	-	1
ICDA**	CAUSE OF DEATH							
001-139	Infective-parasitic	5	22	11	2	2	-	3
010-018	Tuberculosis	-	2	2	-	-	-	1
140-208	Neoplasms-malignant	40	509	228	60	46	41	153
150-159	Digestive	13	148	60	14	11	11	39
160-165	Respiratory	9	131	55	12	8	7	36
174-175	Breast	3	43	24	5	6	1	10
179-187	Genital	5	58	29	12	3	8	26
188-189	Urinary	2	19	8	5	1	3	6
204-208	Leukemia	1	17	7	2	5	3	5
250	Diabetes mellitus	1	40	19	9	-	6	7
390-448	Major cardiovascular	45	1,067	505	129	118	61	320
390-398	Rheumatic heart	-	8	5	2	-	2	2
402,404	Hypertensive heart	-	16	11	2	3	-	10
410-414	Ischemic heart	21	466	218	76	53	31	171
420-429	Other heart	8	343	161	14	24	16	69
400-401, & 403	Hypertension	-	12	5	5	-	2	1
430-438	Cerebrovascular	13	178	82	25	23	9	56
440	Arteriosclerosis	-	21	8	3	9	1	5
460-519	Respiratory	10	211	115	31	25	14	58
480-486	Pneumonia	6	97	59	9	10	5	29
487	Influenza	-	3	2	2	-	-	1
490-491	Bronchitis	-	4	2	1	1	1	1
492	Emphysema	1	24	19	2	1	-	2
493	Asthma	1	3	-	1	1	5	2
531-533	Ulcer of stomach and duodenum	-	4	2	-	1	-	1
550-553, & 560	Hernia & intestinal obstruction	-	6	5	1	2	-	2
571	Chronic liver disease and cirrhosis	-	29	17	3	4	-	7
580-589	Nephritis, nephrotic syndrome & nephrosis	6	11	4	2	2	4	5
590	Kidney infection	1	-	-	-	-	1	1
630-676	Pregnancy, childbirth & puerperium	1	-	-	-	-	-	-
740-759	Congenital anomalies	2	12	6	3	4	4	3
760-779	Perinatal conditions	1	6	3	3	1	1	3
780-799	Ill-defined	3	52	34	9	-	25	10
Residual	Other diseases	4	180	91	26	15	5	55
E800-949	Unintentional injury	7	64	26	17	13	4	30
E810-825	Motor vehicle	2	31	9	10	6	1	18
E880-888	Falls	1	14	8	1	1	1	4
E950-959	Suicide & self-inflicted injury	-	33	14	4	3	4	7
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	2	1	1	-	-	1
E980-999	Other violent deaths	-	3	1	-	1	-	3

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Steele	Stevens	Swift	Todd	Traverse	Wabasha	Wadena
DEATHS - Total		275	93	158	228	63	211	181
Rate:	Age & sex adjusted	8.1	6.8	8.4	7.3	7.6	8.0	9.6
Rate:	Sex adjusted-age specific							
	Under 5 years	0.3	0.0	2.1	1.6	0.0	1.2	2.1
	5-14 years	0.2	0.0	0.0	0.2	0.0	0.7	0.0
	15-24 years	0.2	0.0	0.5	1.2	0.0	1.3	1.0
	25-44 years	0.9	0.0	0.4	0.9	0.0	0.8	1.9
	45-64 years	6.1	6.9	7.5	7.6	6.3	7.6	7.4
	65 years and over	54.2	45.1	54.8	43.7	52.9	48.9	59.7
Sex:	Male	135	45	88	138	27	122	81
	Female	140	48	70	90	36	89	100
	Unknown	-	-	-	-	-	-	-
Race:	White	275	92	157	227	63	211	180
	Black	-	-	-	-	-	-	-
	Indian	-	-	-	-	-	-	1
	Other & unknown	-	1	1	1	-	-	-
ICDA**	CAUSE OF DEATH							
001-139	Infective-parasitic	1	1	1	1	2	4	-
010-018	Tuberculosis	-	-	-	-	-	-	-
140-208	Neoplasms-malignant	64	29	39	49	21	47	34
150-159	Digestive	16	2	14	6	7	9	8
160-165	Respiratory	15	7	4	14	5	13	10
174-175	Breast	3	1	3	3	2	3	3
179-187	Genital	6	7	8	10	3	8	5
188-189	Urinary	-	3	1	4	1	1	1
204-208	Leukemia	2	1	1	4	-	1	-
250	Diabetes mellitus	5	2	2	6	1	4	1
390-448	Major cardiovascular	129	48	73	97	18	90	88
390-398	Rheumatic heart	2	1	-	3	-	-	1
402,404	Hypertensive heart	-	1	-	-	-	-	1
410-414	Ischemic heart	72	22	45	54	11	48	48
420-429	Other heart	24	12	11	23	2	18	17
400-401, & 403	Hypertension	-	-	-	1	-	-	-
430-438	Cerebrovascular	16	10	11	12	3	18	16
440	Arteriosclerosis	9	-	1	1	-	3	1
460-519	Respiratory	21	5	27	13	9	28	22
480-486	Pneumonia	11	3	8	9	6	8	12
487	Influenza	-	-	3	-	-	5	-
490-491	Bronchitis	-	-	-	-	-	-	-
492	Emphysema	1	-	1	1	-	2	5
493	Asthma	1	-	-	-	-	1	-
531-533	Ulcer of stomach and duodenum	1	1	-	1	-	-	2
550-553, & 560	Hernia & intestinal obstruction	1	-	-	-	-	-	1
571	Chronic liver disease and cirrhosis	4	-	1	1	-	3	-
580-589	Nephritis, nephrotic syndrome & nephrosis	4	-	1	4	4	3	1
590	Kidney infection	-	-	-	-	-	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-
740-759	Congenital anomalies	-	1	2	2	-	2	-
760-779	Perinatal conditions	-	-	-	3	-	-	2
780-799	Ill-defined	4	1	-	15	1	1	8
Residual	Other diseases	29	3	7	19	6	18	11
E800-949	Unintentional injury	9	2	4	14	1	8	9
E810-825	Motor vehicle	2	-	2	8	-	5	1
E880-888	Falls	4	1	1	1	-	2	2
E950-959	Suicide & self-inflicted injury	3	-	1	3	-	3	2
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	-	-	-	-	-	-
E980-999	Other violent deaths	-	-	-	-	-	-	-

Table 38
SELECTED RESIDENT MORTALITY STATISTICS BY COUNTY AND CITIES OVER 90,000*
MINNESOTA, 1988

		Waseca	Wash- ington	Watonwan	Wilkin	Winona	Wright	Yellow Medicine	Unknown
DEATHS - Total		132	672	148	75	404	428	146	7
Rate:	Age & sex adjusted	6.0	9.4	8.8	7.3	8.1	7.6	7.2	0.0
Rate:	Sex adjusted-age specific								
	Under 5 years	0.0	1.5	1.0	0.0	1.6	1.7	0.9	0.0
	5-14 years	0.4	0.2	0.0	0.8	0.2	0.1	0.0	0.0
	15-24 years	0.0	0.6	1.3	1.5	0.4	1.1	0.5	0.0
	25-44 years	0.9	0.9	0.3	0.5	1.2	1.2	0.7	0.0
	45-64 years	4.2	6.0	6.9	4.4	7.1	6.2	4.6	0.0
	65 years and over	40.0	63.9	58.5	49.0	50.9	47.2	48.5	0.0
Sex:	Male	77	357	73	34	207	235	70	5
	Female	55	315	75	41	197	193	76	2
	Unknown	-	-	-	-	-	-	-	-
Race:	White	132	670	148	75	403	427	146	6
	Black	-	-	-	-	-	-	-	-
	Indian	-	1	-	-	-	-	-	1
	Other & unknown	-	1	-	-	1	1	-	-
ICDA**	CAUSE OF DEATH								
001-139	Infective-parasitic	-	10	2	1	6	6	1	1
010-018	Tuberculosis	-	-	1	-	-	-	-	-
140-208	Neoplasms-malignant	30	166	42	14	101	98	33	-
150-159	Digestive	8	43	14	6	19	23	12	-
160-165	Respiratory	4	33	6	4	27	18	4	-
174-175	Breast	3	19	2	2	5	7	5	-
179-187	Genital	5	19	7	-	19	12	2	-
188-189	Urinary	1	9	3	2	12	10	3	-
204-208	Leukemia	1	6	4	-	3	6	1	-
250	Diabetes mellitus	7	21	1	1	1	5	4	-
390-448	Major cardiovascular	64	278	71	37	178	178	70	1
390-398	Rheumatic heart	-	1	-	-	1	1	1	-
402,404	Hypertensive heart	-	3	-	-	1	1	-	-
410-414	Ischemic heart	35	144	42	22	79	92	34	1
420-429	Other heart	14	51	15	4	54	44	19	-
400-401, & 403	Hypertension	-	2	-	-	2	-	-	-
430-438	Cerebrovascular	13	61	9	9	26	33	15	-
440	Arteriosclerosis	2	6	4	1	3	2	1	-
460-519	Respiratory	13	67	9	8	43	39	15	1
480-486	Pneumonia	5	33	5	7	20	19	11	1
487	Influenza	-	-	-	-	-	-	-	-
490-491	Bronchitis	-	3	-	-	1	-	-	-
492	Emphysema	-	6	-	-	3	2	1	-
493	Asthma	1	1	-	-	2	2	-	-
531-533	Ulcer of stomach and duodenum	-	-	1	-	-	2	-	-
550-553, & 560	Hernia & intestinal obstruction	-	3	2	-	1	-	-	-
571	Chronic liver disease and cirrhosis	-	7	1	-	4	2	-	-
580-589	Nephritis, nephrotic syndrome & nephrosis	-	5	-	3	2	3	2	-
590	Kidney infection	-	-	-	-	-	-	-	-
630-676	Pregnancy, childbirth & puerperium	-	-	-	-	-	-	-	-
740-759	Congenital anomalies	-	5	1	-	2	3	-	-
760-779	Perinatal conditions	-	5	-	-	3	5	-	-
780-799	Ill-defined	2	10	3	4	4	12	-	-
Residual	Other diseases	10	47	8	3	40	37	16	-
E800-949	Unintentional injury	5	35	6	3	12	33	4	2
E810-825	Motor vehicle	-	18	1	3	8	22	2	2
E880-888	Falls	1	4	2	-	1	6	-	-
E950-959	Suicide & self-inflicted injury	1	10	1	1	7	3	-	1
E960-978	Homicide & injury purposely inflicted by other persons & legal intervention	-	1	-	-	-	1	-	1
E980-999	Other violent deaths	-	2	-	-	-	1	1	-

* As of the 1980 Census.
** For detailed causes, see Table 31.

Marriage

Table 39
MARRIAGES REPORTED IN MINNESOTA BY STATE OF RESIDENCE
1988

State of Residence	Marriages Reported Residence of Bride	Marriages Reported Residence of Groom	Percent of Marriages Reported Residence of Bride	Percent of Marriages Reported Residence of Groom
Total	33,654	33,654	100.0	100.0
Minnesota*	31,194	30,136	92.7	89.5
Other Areas and Unknown	2,460	3,518	7.3	10.5
Iowa	147	206	0.4	0.6
North Dakota	332	421	1.0	1.3
South Dakota	95	125	0.3	0.4
Wisconsin	398	587	1.2	1.7
Other States	1,407	2,051	4.2	6.1
U.S. Territories	-	3	-	0.0
Other Nations	81	125	0.2	0.4
Unknown	-	-	-	-

---

* The resident totals are not true resident totals for Minnesota. Information is not available at the present time on the number of Minnesotans who marry in other states.

Table 40
MARRIAGES BY COUNTY OF OCCURRENCE
MINNESOTA, 1988

County	Marriages	County	Marriages
State Total	33,654		
Aitkin	72	Martin	122
Anoka	1,515	Meeker	126
Becker	214	Mille Lacs	122
Beltrami	312	Morrison	184
Benton	70	Mower	241
Big Stone	26	Murray	57
Blue Earth	484	Nicollet	135
Brown	219	Nobles	152
Carlton	232	Norman	37
Carver	333	Olmsted	972
Cass	85	Otter Tail	232
Chippewa	82	Pennington	122
Chisago	232	Pine	118
Clay	484	Pipestone	82
Clearwater	52	Polk	246
Cook	29	Pope	58
Cottonwood	84	Ramsey	4,243
Crow Wing	393	Red Lake	22
Dakota	1,091	Redwood	100
Dodge	89	Renville	71
Douglas	222	Rice	330
Faribault	75	Rock	64
Fillmore	121	Roseau	115
Freeborn	261	St. Louis	1,340
Goodhue	251	Scott	502
Grant	23	Sherburne	226
Hennepin	10,578	Sibley	72
Houston	122	Stearns	1,191
Hubbard	108	Steele	235
Isanti	167	Stevens	60
Itasca	310	Swift	63
Jackson	51	Todd	113
Kanabec	89	Traverse	19
Kandiyohi	272	Wabasha	103
Kittson	33	Wadena	148
Koochiching	99	Waseca	116
Lac Qui Parle	52	Washington	860
Lake	61	Watonwan	79
Lake of the Woods	38	Wilkin	51
Le Sueur	97	Winona	375
Lincoln	42	Wright	403
Lyon	198	Yellow Medicine	59
McLeod	237		
Mahnomen	30		
Marshall	53		

Table 41
MARRIAGES OCCURRING IN MINNESOTA
BY RACE OF BRIDE AND GROOM, 1988

	GROOM								
BRIDE	TOTAL	WHITE	BLACK	INDIAN	CHINESE	JAPANESE	OTHER* ASIAN	OTHER	UNKNOWN
TOTAL	33,654	28,981	764	249	37	8	213	23	3,379
WHITE	29,053	28,266	275	138	18	7	79	14	256
BLACK	504	46	447	-	-	-	2	-	9
INDIAN	221	104	6	105	-	-	2	-	4
CHINESE	38	21	-	-	16	-	-	-	1
JAPANESE	12	11	-	-	1	-	-	-	-
OTHER ASIAN*	229	92	2	-	2	-	120	-	13
OTHER	30	22	-	-	-	-	-	5	3
UNKNOWN	3,567	419	34	6	-	1	10	4	3,093

* Includes Pacific Islanders

Table 42
MARRIAGES OCCURRING IN MINNESOTA BY AGE OF BRIDE AND GROOM, 1988

Bride's Age	Total	Groom's Age Under 18	18-19	20	21-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 & Over	Un-known*
Total	33,654	26	817	1,009	8,870	10,377	5,335	2,808	1,655	977	564	406	291	516	3
Under 18	215	11	96	29	62	15	1	1	-	-	-	-	-	-	-
18-19	2,341	9	473	412	1,063	318	50	6	7	1	2	-	-	-	-
20	1,936	3	134	267	1,063	385	55	22	5	1	-	-	1	-	-
21-24	10,668	3	89	259	5,337	3,890	814	179	63	18	7	3	2	2	2
25-29	8,917	-	22	30	1,105	4,554	2,179	692	240	61	19	5	2	7	1
30-34	4,262	-	1	10	186	955	1,662	913	359	123	30	14	7	2	-
35-39	2,227	-	2	1	41	204	447	709	492	208	73	32	10	8	-
40-44	1,218	-	-	1	7	41	100	217	349	279	136	64	19	5	-
45-49	729	-	-	-	3	11	21	56	111	222	156	93	36	20	-
50-54	384	-	-	-	-	1	5	9	26	55	103	100	50	35	-
55-59	236	-	-	-	-	-	-	1	3	5	27	67	70	63	-
60-64	182	-	-	-	-	-	-	-	-	2	9	20	60	91	-
65+	329	-	-	-	-	-	1	-	-	2	2	8	34	282	-
Unknown*	10	-	-	-	3	3	-	3	-	-	-	-	-	1	-

* Includes age specified as legal

Divorce

DISSOLUTIONS AND ANNULMENTS IN MINNESOTA

The nine tables which follow depict selected characteristics of Minnesota's population which experienced divorce in 1988. Interpretation of these data should be carefully executed due to the large amount of missing data in some tables.

Table 44 shows age of wife versus age of husband for dissolutions and annulments occurring in 1988. Twenty-four percent of all divorces occurred to women aged 25-29. Twenty percent of all divorces also occurred to men aged 25-29. The greatest percentage of total divorces for husbands (20.8 percent) occurred in the 30-34 age group, and in the 25-29 age group for wives.

Table 46 indicates educational attainment levels of divorce subjects. The husbands' highest level of education was high school in 31 percent, whereas 33 percent of all wives involved in divorce completed high school. Some post high school education was evident in approximately 20 percent of all divorces for both men and women. Graduate level education was more prevalent for husbands.

Tables 47 and 48 indicate custody arrangement for children of couples who divorced in 1988. These tables should be used cautiously since numerous records were omitted from the custody arrangement analyses due to inconsistencies within data pertaining to individual divorce events or missing data elements. The following criteria were used to omit events:

1. Of the 15,245 divorce records, 1,474 records contain only indexing information. These were rejected since all other data elements were blank.

2. Five thousand nine hundred fifty four records of the remaining 13,771 were rejected because there was no mention of children residing in the household at separation date.

3. Two hundred twenty nine records in which children were indicated at the time of separation but were not products of the current marriage were eliminated.

4. Of the remaining records for which children were indicated, 7,520 contained custody information. One of those 7,520 cases was omitted because the number of children at time of separation was unknown.

Judicial decision about placement of children by family size is depicted in Table 47. All children were awarded to the wife in 78 percent of all divorce cases for which custody was known, while husbands were awarded custody of all children in nine percent of all cases.

The total number of children affected by divorce in Minnesota--after omitting records by the previously described methods--was 13,660. Custody arrangements for those children are indicated in Table 48.

Please note that differentiation must be made between Table 47 and Table 48 in that Table 47 pertains to cases with children and Table 48 depicts total number of children affected.

Table 49 indicates average monthly amounts of child support awarded by family size. On a per child basis, support awards decreased as family size increased with the exception of those cases in which six children were involved. Because of the small numbers of cases with six or more children, caution is advised in interpreting the data.

Approximately 47 percent of all divorces in 1988 occurred for marriages in which both partners had not been previously married. Table 50 indicates number of prior marriages for husbands and wives. More than half of all divorces in 1988 occurred for marriages of less than ten years duration as indicated in Table 51.

Table 43
DISSOLUTIONS AND ANNULMENTS BY COUNTY OF OCCURRENCE AND TYPE OF DECREE
MINNESOTA, 1988

County	Total	Dissolutions	Annulments
State Total	15,245*	15,229	14
Aitkin	34	34	-
Anoka	1,074	1,074	-
Becker	107	107	-
Beltrami	161	161	-
Benton	61	61	-
Big Stone	17	17	-
Blue Earth	122	122	-
Brown	55	55	-
Carlton	107	107	-
Carver	184	184	-
Cass	73	73	-
Chippewa	27	27	-
Chisago	112	112	-
Clay	155	155	-
Clearwater	13	13	-
Cook	16	16	-
Cottonwood	23	23	-
Crow Wing	172	172	-
Dakota	1,072	1,072	-
Dodge	41	41	-
Douglas	79	79	-
Faribault	27	27	-
Fillmore	59	59	-
Freeborn	130	130	-
Goodhue	123	122	1
Grant	9	9	-
Hennepin	4,283	4,279	4
Houston	63	63	-
Hubbard	33	33	-
Isanti	107	107	-
Itasca	154	154	-
Jackson	30	30	-
Kanabec	37	37	-
Kandiyohi	121	121	-
Kittson	9	9	-
Koochiching	65	65	-
Lac Qui Parle	13	13	-
Lake	45	45	-
Lake of the Woods	9	9	-
Le Sueur	44	44	-
Lincoln	15	15	-
Lyon	72	71	1
McLeod	111	111	-
Mahnomen	15	15	-
Marshall	27	27	-

Table 43
DISSOLUTIONS AND ANNULMENTS BY COUNTY OF OCCURRENCE AND TYPE OF DECREE
MINNESOTA, 1988 (CONT.)

County	Total	Dissolutions	Annulments
Martin	74	74	-
Meeker	45	45	-
Mille Lacs	68	68	-
Morrison	76	76	-
Mower	120	120	-
Murray	16	15	1
Nicollet	61	61	-
Nobles	47*	46	-
Norman	20	20	-
Olmsted	390	390	-
Ottertail	153	153	-
Pennington	57	57	-
Pine	68	67	1
Pipestone	26	26	-
Polk	25	25	-
Pope	19	19	-
Ramsey	1,697	1,693	4
Red Lake	6	6	-
Redwood	35	35	-
Renville	30	30	-
Rice	147*	146	-
Rock	17	17	-
Roseau	50	50	-
St. Louis	762	762	-
Scott	182	182	-
Sherburne	136	136	-
Sibley	30	30	-
Stearns	296	296	-
Steele	80	80	-
Stevens	14	14	-
Swift	24	24	-
Todd	65	65	-
Traverse	5	5	-
Wabasha	48	46	2
Wadena	45	45	-
Waseca	52	52	-
Washington	510	510	-
Watonwan	41	41	-
Wilkin	19	19	-
Winona	140	140	-
Wright	215	215	-
Yellow Medicine	28	28	-

* Includes unknown decree type.

Table 44
DISSOLUTIONS AND ANNULMENTS BY AGE OF WIFE VERSUS AGE OF HUSBAND
MINNESOTA OCCURRENCE, 1988

	Husband's Age												
Wife's Age	Total	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65 & Over	Unknown
Total	15,245	15	982	3,077	3,178	2,627	2,027	1,285	723	364	231	270	466
15-19	127	5	89	22	5	3	1	-	-	-	-	-	2
20-24	1,892	9	688	928	193	46	12	4	3	1	-	1	7
25-29	3,612	1	170	1,718	1,243	312	111	35	5	2	2	2	11
30-34	3,047	-	15	306	1,380	939	262	89	30	9	3	3	11
35-39	2,382	-	8	65	257	1,071	690	192	53	24	11	3	8
40-44	1,712	-	1	15	67	191	791	477	105	33	15	9	8
45-49	1,009	-	1	4	14	32	128	425	288	78	24	13	2
50-54	452	-	1	2	3	10	15	47	206	94	49	21	4
55-59	213	-	-	-	-	1	4	9	24	90	55	30	-
60-64	148	-	-	-	-	-	3	2	4	22	58	57	2
65 & Over	160	-	-	-	-	1	-	-	2	9	12	131	5
Unknown	491	-	9	17	16	21	10	5	3	2	2	-	406

Table 45
DISSOLUTIONS AND ANNULMENTS BY RACE OF WIFE VERSUS RACE OF HUSBAND
MINNESOTA OCCURRENCE, 1988

	Husband's Race									
Wife's Race	Total	White	Black	Indian	Chinese	Japanese	Hawaiian	Other Non-White	Filipino	Other Asian*	Unknown
Total	15,245	7,351	302	82	9	2	-	2	8	62	7,427
White	7,417	7,236	71	37	4	2	-	1	1	12	53
Black	243	11	223	1	1	-	-	-	-	1	6
Indian	81	30	3	43	-	-	-	1	-	-	4
Chinese	7	3	-	-	4	-	-	-	-	-	-
Japanese	3	3	-	-	-	-	-	-	-	-	-
Hawaiian	1	-	-	-	-	-	-	-	-	1	-
Other Non-White	-	-	-	-	-	-	-	-	-	-	-
Filipino	11	6	1	-	-	-	-	-	4	-	-
Other Asian*	80	31	1	-	-	-	-	-	2	45	1
Unknown	7,402	31	3	1	-	-	-	-	1	3	7,363

---

* Includes Pacific Islanders

Table 46
DISSOLUTIONS AND ANNULMENTS BY EDUCATIONAL ATTAINMENT OF WIFE VERSUS EDUCATIONAL ATTAINMENT OF HUSBAND
MINNESOTA OCCURRENCE, 1988

	Husband's Educational Attainment					
Wife's Educational Attainment	Total	Less Than 12 Years	High School Graduate	1-4 Years of College	5+ Years of College	Unknown
Total	15,245	930	4,683	2,567	551	6,514
Less Than 12 Years	709	267	307	66	-	69
High School Graduate	4,984	482	3,310	809	83	300
1-4 Years of College	2,741	135	769	1,463	264	110
5+ Years of College	381	9	36	136	187	13
Unknown	6,430	37	261	93	17	6,022

Table 47
NUMBER OF CHILDREN IN FAMILY BY CUSTODY AWARD
MINNESOTA DISSOLUTIONS AND ANNULMENTS, 1988

	Number of Dissolution Cases					
Number of Children in Family	All Children Awarded to Wife	All Children Awarded to Husband	Children's Custody Shared	All Children Awarded to Non-Parental Party	Custody of Children Split*	Total Cases
1	2,481	275	337	21	-	3,114
2	2,369	262	308	10	103	3,052
3	809	84	84	4	64	1,045
4	172	18	26	3	31	250
5	29	5	1	1	10	46
6	6	2	-	-	1	9
7	1	-	-	1	-	2
8	-	-	-	-	-	-
9	1	-	-	-	-	1
Total	5,868	646	756	40	209	7,519
Percent of Total	78.0	8.6	10.1	0.5	2.8	100.0

* More than one party is awarded custody of one or more children in a multiple child family.

Table 48

NUMBER OF CHILDREN IN FAMILY VERSUS TOTAL NUMBER OF CHILDREN WHOSE CUSTODY WAS AWARDED TO WIFE, HUSBAND, BOTH OR NON-PARENTAL PARTY MINNESOTA DISSOLUTIONS AND ANNULMENTS, 1988

	Number of Children Awarded				
Number of Children In Family	Number Awarded To Wife	Number Awarded To Husband	Number In Shared Custody	Number Awarded To Non-Parental Party	Total Number Of Children
1	2,481	275	337	21	3,114
2	4,839	618	621	26	6,104
3	2,522	324	264	25	3,135
4	749	125	109	17	1,000
5	173	39	9	9	230
6	40	14	-	-	54
7	7	-	-	7	14
8	-	-	-	-	-
9	9	-	-	-	9
Total	10,820	1,395	1,340	105	13,660
Percent of Total	79.2	10.2	9.8	0.8	100.0

Table 49

AVERAGE MONTHLY AMOUNT OF CHILD SUPPORT AWARDED* BY NUMBER OF CHILDREN MINNESOTA DISSOLUTIONS AND ANNULMENTS, 1988

Number of Children	Number of Cases	Average Total Support Awarded	Average Support Awarded Per Child
1	2,492	$278	$278
2	2,441	$375	$188
3	832	$451	$150
4	186	$492	$123
5	32	$465	$ 93
6	3	$641	$107
7	-	-	-
8	-	-	-
9	1	$736	$ 82

The average amount of monthly child support awarded per child (10,800 total children) was $194.00.

---

* Based on 5,987 cases for which the amount of child support was known.

Table 50
DISSOLUTIONS AND ANNULMENTS BY NUMBER OF THIS MARRIAGE FOR WIFE VERSUS NUMBER OF THIS MARRIAGE FOR HUSBAND
MINNESOTA OCCURRENCE, 1988

	Husband's Number This Marriage							
Wife's Number This Marriage	Total	First	Second	Third	Fourth	Fifth	Sixth or Greater	Unknown
Total	15,245	8,037	1,910	335	79	15	4	4,865
First	8,140	7,159	808	100	18	6	1	48
Second	1,852	733	877	150	38	6	1	47
Third	353	100	160	66	16	3	2	6
Fourth	62	13	32	13	4	-	-	-
Fifth	16	2	7	4	3	-	-	-
Sixth or Greater	2	-	2	-	-	-	-	-
Unknown	4,820	30	24	2	-	-	-	4,764

Table 51
DISSOLUTIONS AND ANNULMENTS BY DURATION OF MARRIAGE
MINNESOTA OCCURRENCE, 1988

Years Married	Number of Dissolutions	Percent of Total
Less than 1	212	1.4
1-4	4,244	27.8
5-9	3,977	26.1
10-14	2,025	13.3
15-19	1,343	8.8
20-24	867	5.7
25-29	495	3.2
30-34	237	1.6
35-39	115	0.8
40 or More	91	0.6
Unknown Duration	1,639	10.8
TOTAL	15,245	100.0

Occupational Illness and Injury

Table 52
NUMBER OF INJURIES AND ILLNESSES BY MAJOR INDUSTRIAL CATEGORY MINNESOTA, 1987 AND 1988

Industrial Category	Number of Injuries and Illnesses 1987	Percent of Total	1988	Percent of Total	Percent Change 1987-1988
Private Sector					
1. Agriculture, Forestry and Fisheries	762	1.6	839	1.6	+10.1
2. Mining	208	0.4	297	0.6	+42.8
3. Construction	5,296	11.0	5,039	9.4	-4.9
4. Manufacturing	14,684	30.4	17,048	31.9	+16.1
5. Transportation and Public Utilities	3,405	7.0	3,643	6.8	+7.0
6. Wholesale and Retail Trades	9,443	19.5	10,061	18.8	+6.5
7. Finance, Insurance and Real Estate	765	1.6	790	1.5	+3.3
8. Services	9,231	19.1	9,884	18.5	+7.1
9. Public Sector*	4,527	9.4	5,911	11.1	+30.6
Nonclassified Industries	7	0.0	3	0.0	-57.1
Total	48,328	100.0	53,515	100.0	+10.7

* Industrial categories are not differentiated. Includes all government and public administration data, regardless of industrial category.

Table 53
ANNUAL AVERAGE EMPLOYMENT, PERCENT OF TOTAL EMPLOYMENT AND RATE OF OCCUPATIONAL INJURIES AND ILLNESSES PER 1,000 WORKERS BY INDUSTRIAL CATEGORY, MINNESOTA 1987 AND 1988

Industrial Category	1987	1988
Mining		
Annual Average Employment	5,991	6,882
Percent	0.3	0.3
Rate of Injuries Per 1,000 Workers	34.7	43.2
Construction		
Annual Average Employment	80,073	78,631
Percent	4.1	3.9
Rate of Injuries Per 1,000 Workers	66.1	64.1
Manufacturing		
Annual Average Employment	376,434	393,623
Percent	19.2	19.5
Rate of Injuries Per 1,000 Workers	39.0	43.3
Transportation and Public Utilities		
Annual Average Employment	99,863	101,851
Percent	5.1	5.0
Rate of Injuries Per 1,000 Workers	34.1	35.8
Wholesale and Retail Trades		
Annual Average Employment	489,323	508,063
Percent	25.0	25.1
Rate of Injuries Per 1,000 Workers	19.3	19.8
Finance, Insurance and Real Estate		
Annual Average Employment	119,122	119,408
Percent	6.1	5.9
Rate of Injuries Per 1,000 Workers	6.4	6.6
Services		
Annual Average Employment	473,791	492,050
Percent	24.2	24.3
Rate of Injuries Per 1,000 Workers	19.5	20.1
Public Administration and Government		
Annual Average Employment	313,821	321,602
Percent	16.0	15.9
Rate of Injuries Per 1,000 Workers	14.4	18.4
Total - Average Annual Employment	1,958,418	2,022,110
Total - Rate of Injuries Per 1,000 Workers	24.3	26.0

* Occupational injury and illness rates were calculated by dividing the number of injuries for an industrial category by the average annual employment and are reported as rate per 1,000 workers. Data pertaining to the agricultural industry was suppressed due to the unreliability of the occupation estimates available at the time of publication.

Table 54

NUMBER OF INJURIES AND ILLNESSES BY MAJOR OCCUPATIONAL CATEGORY MINNESOTA, 1987 AND 1988

Occupational Category	Number of Injuries and Illnesses 1987	Percent of Total	1988	Percent of Total	Percent Change 1987-1988
1. Professional and Technical	1,897	3.9	2,106	3.9	+11.0
2. Managers and Administrators	2,039	4.2	2,272	4.2	+11.4
3. Sales Workers	899	1.9	1,025	1.9	+14.0
4. Clerical Workers	2,868	5.9	3,392	6.3	+18.3
5. Crafts Workers	8,617	17.8	8,864	16.6	+2.9
6. Operatives	12,240	25.3	13,560	25.3	+10.8
7. Laborers	7,832	16.2	9,345	17.5	+19.3
8. Farmers and Farm Laborers	269	0.6	339	0.6	+26.0
9. Service Workers	9,810	20.3	10,509	19.6	+7.1
Not Reported	1,857	3.8	2,103	3.9	+13.3
Total	48,328	100.0	53,515	100.0	+10.7

Table 55
NUMBER OF OCCUPATIONAL INJURIES AND ILLNESSES BY TYPE OF ACCIDENT MINNESOTA, 1987 AND 1988

	Number of Injuries and Illnesses				
Type of Accident	1987	Percent of Total	1988	Percent of Total	Percent Change 1987-1988
Struck Against or By Object	8,639	17.9	9,324	17.4	+7.9
Fall	6,802	14.1	8,167	15.3	+20.1
Caught In, Under or Between Objects	1,787	3.7	2,157	4.0	+20.7
Abraded	902	1.9	909	1.7	+0.8
Motion	2,696	5.6	2,746	5.1	+1.9
Over Exertion	17,056	35.3	19,240	36.0	+12.8
Contact with Electricity	82	0.2	101	0.2	+23.2
Contact with Extreme Temperature	802	1.7	863	1.6	+7.6
Contact with Radiation Toxics or Caustics	1,042	2.2	1,216	2.3	+16.7
Public Transportation	10	0.0	10	0.0	0.0
Motor Vehicle Accidents	1,017	2.1	1,347	2.5	+32.5
Exposure to Noise	77	0.2	79	0.1	+2.6
Explosion	45	0.1	58	0.1	+28.9
Non-Highway Motor Vehicle Accidents	259	0.5	324	0.6	+25.1
Accidents, N.E.C.	487	1.0	581	1.1	+19.3
Unclassified Data	6,625	13.7	6,393	11.9	-3.5
Total	48,328	100.0	53,515	100.0	+10.7

Table 56
NUMBER OF OCCUPATIONAL INJURIES AND ILLNESSES BY NATURE OF INJURY
MINNESOTA, 1987 AND 1988

	Number of Injuries and Illnesses				
Nature of Injury	1987	Percent of Total	1988	Percent of Total	Percent Change 1987-1988
Amputation	78	0.2	114	0.2	+46.2
Laceration	4,910	10.2	5,135	9.6	+4.6
Contusion	3,129	6.5	3,601	6.7	+15.1
Abrasion	632	1.3	643	1.2	+1.7
Heat Burn	830	1.7	849	1.6	+2.3
Chemical Burn	355	0.7	348	0.7	-2.0
Concussion	70	0.1	93	0.2	+32.9
Fracture	2,902	6.0	3,155	5.9	+8.7
Dislocation	1,350	2.8	1,413	2.6	+4.7
Sprain	21,826	45.2	23,940	44.7	+9.7
Hernia	936	1.9	954	1.8	+1.9
Asphyxia	1	0.0	4	0.0	+300.0
Barometric Effects	3	0.0	-	0.0	-100.0
Frostbite, Freezing	5	0.0	24	0.0	+380.0
Heat Stroke	21	0.0	40	0.1	+90.5
Electric Shock	53	0.1	64	0.1	+20.8
Hearing Loss	95	0.2	108	0.2	+13.7
Infective Diseases	91	0.2	66	0.1	-27.5
Respiratory Diseases	52	0.1	77	0.1	+48.1
Pneumoconiosis	11	0.0	12	0.0	+9.1
Poisoning	284	0.6	422	0.8	+48.6
Mental Diseases	129	0.3	177	0.3	+37.2
Nervous System Diseases	888	1.8	1,112	2.1	+25.2
Neoplasm	7	0.0	9	0.0	+28.6
Radiation Effects	27	0.1	38	0.1	+40.7
Dermatitis	288	0.6	350	0.7	+21.5
Circulatory System	121	0.3	127	0.2	+5.0
Heart Conditions (Includes Heart Attack)	223	0.5	222	0.4	-0.5
Eye Diseases	48	0.1	42	0.1	-12.5
Inflammation of Joints	1,312	2.7	1,626	3.0	+23.9
Hemorrhoids	12	0.0	14	0.0	+16.7
Multiple Injuries	1,934	4.0	1,689	3.2	-12.7
Unclassified	5,705	11.8	7,047	13.2	+23.5
Total	48,328	100.0	53,515	100.0	+10.7

Table 57
NUMBER OF OCCUPATIONAL INJURIES AND ILLNESSES BY PART OF BODY INJURED
MINNESOTA, 1987 AND 1988

Part of Body	Number of Injuries and Illnesses 1987	Percent of Total	1988	Percent of Total	Percent Change 1987-1988
Head, Except Eye	1,040	2.2	1,223	2.3	+17.6
Eye	1,018	2.1	1,059	2.0	+4.0
Neck	863	1.8	942	1.8	+9.2
Upper Extremities, Except Finger	6,816	14.1	7,804	14.6	+14.5
Finger	4,125	8.5	4,244	7.9	+2.9
Trunk, Except Back	5,169	10.7	5,825	10.9	+12.7
Back	15,177	31.4	16,434	30.7	+8.3
Lower Extremities, Except Leg	4,389	9.1	4,549	8.5	+3.7
Leg	3,844	8.0	4,349	8.1	+13.1
Body Systems	1,126	2.3	1,404	2.6	+24.7
Multiple Parts	4,225	8.7	5,047	9.4	+19.5
Body Parts Unclassified	536	1.1	635	1.2	+18.5
Total	48,328	100.0	53,515	100.0	+10.7

Poison

POISON STATISTICS

The poison statistics in this report are derived from the Cooperative Poison Center Report form (designed by the American Association of Poison Control Center (AAPCC)) in use at both the Minnesota Regional Poison Center and the Hennepin Poison Center. The Center for Health Statistics thanks the Minnesota Regional Poison Center and the Hennepin Poison Center for their help and cooperation in production of these statistical tables.

Combining data from both Poison Centers ensures a large centrally located, statewide base of information that depicts the incidence of poisoning in Minnesota and aids in the design and implementation of clinical toxicology studies. In addition, epidemiologists and other health professionals are able to further their understanding of poison control problems and develop more effective strategies for future intervention and prevention of these events.

During 1988 59,448 calls were made to the Poison Center in Minnesota. Of these calls 5,437 were for information only. The other 54,011 were due to a poisoning incident of a person or animal. Fifty-one thousand three hundred sixty-six calls involved a human who had been exposed to a harmful substance. All statistics in this section pertain to the 51,366 human exposures.

The five tables which follow depict selected statistics reported to the Poison Control Centers in Minnesota.

Table 58 shows human exposure calls by medical outcome. Although approximately 64 percent of the calls involved children under six years of age, there were no deaths in this age group. One child died in the 6-17 year age group and 20 deaths were reported among adults.

Human Exposure Calls by Cause and Sex (Table 59) shows that most exposures are accidental (88.7 percent). About 10 percent of all poisoning exposures are intentional. The distribution by sex is about equal, 50 percent male and 47 percent female (three percent unknown sex). However, intentional exposures were reported to be more common among females.

Table 60, Human Exposure Calls by Cause and Age, shows that approximately 64 percent of the exposures are to children under six years of age, 26 percent to adults and nine percent to children 6-17.

Table 62 shows the generic substance category and age group for poison exposures which were reported to the Poison Control Centers. The totals in this table add to more than the actual number of individuals due to multiple poison exposures among some individuals.

Definitions pertaining to the poison data appear in Appendix A, pages 161 through 164.

Table 58
HUMAN EXPOSURE CALLS BY MEDICAL OUTCOME
MINNESOTA, 1988

Outcome	Total*	Percent	<6 Years	Percent of Row Total	6-17 Years	Percent of Row Total	18+ Years	Percent of Row Total
No Effect	28,861	56.2	22,954	79.5	2,034	7.0	3,690	12.8
Minor Effect	11,752	22.9	3,598	30.6	1,668	14.2	6,398	54.4
Moderate Effect	613	1.2	57	9.3	68	11.1	479	78.1
Major Effect	107	0.2	14	13.1	9	8.4	82	76.6
Unknown Effect Non-Toxic Exposure	6,879	13.4	5,319	77.3	555	8.1	978	14.2
Unknown Effect Potentially Toxic Exposure	2,257	4.4	433	19.2	345	15.3	1,415	62.7
Unrelated Effect	877	1.7	372	42.4	88	10.0	407	46.4
Death	20	0.0	-	0.0	1	5.0	19	95.0
Unknown Effect	-	0.0	-	0.0	-	0.0	-	0.0
TOTAL	51,366	100.0	32,747	63.8	4,768	9.3	13,468	26.2

* Total includes unknown age.

Table 59
HUMAN EXPOSURE CALLS BY CAUSE AND SEX
MINNESOTA, 1988

	Total		Male		Female		Unknown	
Cause	Frequency	Percent	Frequency	Percent of Row Total	Frequency	Percent of Row Total	Frequency	Percent of Row Total
Accidental	45,541	88.7	23,441	51.5	20,742	45.5	1,358	3.0
General	43,863	85.4	22,497	51.3	20,046	45.7	1,320	3.0
Occupational	777	1.5	550	70.8	209	26.9	18	2.3
Environmental	146	0.3	64	43.8	80	54.8	2	1.4
Misuse	697	1.4	299	42.9	384	55.1	14	2.0
Unknown	58	0.1	31	53.4	23	39.7	4	6.9
Intentional	5,306	10.3	1,987	37.4	3,256	61.4	63	1.2
Suicide	3,515	6.8	1,049	29.8	2,428	69.1	38	1.1
Misuse	521	1.0	229	44.0	285	54.7	7	1.3
Abuse	865	1.7	553	63.9	304	35.1	8	0.9
Unknown	405	0.8	156	38.5	239	59.0	10	2.5
Adverse Reaction	387	0.8	135	34.9	239	61.8	13	3.4
Drug	264	0.5	84	31.8	177	67.0	3	1.1
Food	106	0.2	48	45.3	48	45.3	10	9.4
Other	17	0.0	3	17.6	14	82.4	-	0.0
Unknown Reason	132	0.3	63	47.7	64	48.5	5	3.8
TOTAL	51,366	100.0	25,626	49.9	24,301	47.3	1,439	2.8

Table 60
HUMAN EXPOSURE CALLS BY CAUSE AND AGE
MINNESOTA, 1988

Cause	Total*		<6 Years		6-17 Years		18+ Years	
	Frequency	Percent	Frequency	Percent of Row Total	Frequency	Percent of Row Total	Frequency	Percent of Row Total
Accidental	45,541	88.7	32,650	71.7	3,286	7.2	9,280	20.4
General	43,863	85.4	32,433	73.9	3,080	7.0	8,044	18.3
Occupational	777	1.5	6	0.8	20	2.6	740	95.2
Environmental	146	0.3	28	19.2	21	14.4	94	64.4
Misuse	697	1.4	179	25.7	159	22.8	354	50.8
Unknown	58	0.1	4	6.9	6	10.3	48	82.8
Intentional	5,306	10.3	58	1.1	1,429	26.9	3,766	71.0
Suicide	3,515	6.8	26	0.7	988	28.1	2,472	70.0
Misuse	521	1.0	22	4.2	156	29.9	342	65.6
Abuse	865	1.7	4	0.5	177	20.5	670	77.5
Unknown	405	0.8	6	1.5	108	26.7	282	69.6
Adverse Reaction	387	0.8	33	8.5	37	9.6	315	81.4
Drug	264	0.5	17	6.4	27	10.2	218	82.6
Food	106	0.2	14	13.2	8	7.5	84	79.2
Other	17	0.0	2	11.8	2	11.8	13	76.5
Unknown Reason	132	0.3	6	4.5	16	12.1	107	81.1
TOTAL	51,366	100.0	32,747	63.8	4,768	9.3	13,408	26.2

* Total includes unknown age group.

Table 61
HUMAN EXPOSURE CALLS BY AGE AND SEX
MINNESOTA, 1988

	Total		Male		Female		Unknown	
Age	Frequency	Percent	Frequency	Percent of Row Total	Frequency	Percent of Row Total	Frequency	Percent of Row Total
<1	4,726	9.2	2,413	51.1	2,210	46.8	103	2.2
1	9,015	17.6	4,764	52.8	4,090	45.4	161	1.8
2	10,779	21.0	5,778	53.6	4,788	44.4	213	2.0
3	4,704	9.2	2,588	55.0	2,032	43.2	84	1.8
4	1,904	3.7	1,055	55.4	798	41.9	51	2.7
5	1,026	2.0	569	55.5	427	41.6	30	2.9
6-12	2,495	4.9	1,383	55.4	1,001	40.1	111	4.4
13-17	2,273	4.4	770	33.9	1,482	65.2	21	0.9
18+	13,468	26.2	6,020	44.7	7,227	53.7	221	1.6
Unknown*	976	1.9	286	29.3	246	25.2	444	45.5
TOTAL	51,366	100.0	25,626	49.9	24,301	47.3	1,439	2.8

* The "unknown age" category includes "unknown infant" and "unknown child" sub-categories.

Table 62
HUMAN EXPOSURE CALLS BY GENERIC SUBSTANCE CATEGORY* AND AGE GROUP
MINNESOTA, 1988

Category Label	Total	Percent	<6 Years	Percent of Row Total	6-17 Years	Percent of Row Total
Adhesives, glues, cements, paste (excluding concrete)	652	1.2	382	58.6	85	13.0
Alcohols	1,425	2.7	484	34.0	118	8.3
Analgesics	6,107	11.4	3,504	57.4	1,045	17.1
Anesthetics	131	0.2	106	80.9	2	1.5
Anticholinergic	82	0.2	26	31.7	7	8.5
Anticoagulants	18	0.0	12	66.7	-	0.0
Anticonvulsants	282	0.5	96	34.0	35	12.4
Antidepressants	946	1.8	98	10.4	86	9.1
Antihistamines	709	1.3	271	38.2	115	16.2
Antimicrobials	1,741	3.2	1,305	75.0	164	9.4
Antineoplastics	15	0.0	6	40.0	1	6.7
Arts, crafts, writing products, office supplies	1,053	2.0	830	78.8	135	12.8
Asthma therapies	341	0.6	198	58.1	75	22.0
Automotive, aircraft, boat products (excluding batteries, motor oil, cleaning agents)	320	0.6	116	36.2	24	7.5
Batteries	263	0.5	113	43.0	37	14.1
Bites and envenomations	724	1.3	193	26.7	126	17.4
Building and construction products	235	0.4	133	56.6	19	8.1
Cardiovascular drugs	494	0.9	242	49.0	42	8.5
Chemicals	1,210	2.3	396	32.7	105	8.7
Cleaning substances - household (excluding hydrofluoric acid containing products)	4,695	8.7	3,104	66.1	274	5.8
Cleaning agents - industrial	163	0.3	48	29.4	10	6.1
Cold and cough preparations	2,572	4.8	2,062	80.2	233	9.1
Cosmetics and personal care products	4,103	7.6	3,390	82.6	222	5.4
Deodorizers - not for personal use	377	0.7	324	85.9	19	5.0
Diagnostic agents	13	0.0	6	46.2	-	0.0
Diuretics	138	0.3	76	55.1	6	4.3
Dyes	96	0.2	80	83.3	10	10.4
Electrolytes and minerals	363	0.7	291	80.2	29	8.0
Essential oils	91	0.2	68	74.7	12	13.2
Eye, ear, nose and throat preparations	391	0.7	264	67.5	16	4.1
Fertilizers	271	0.5	206	76.0	18	6.6
Fire extinguishers	63	0.1	10	15.9	15	23.8
Food products and food poisoning	1,512	2.8	413	27.3	157	10.4
Foreign bodies, toys and miscellaneous	2,065	3.8	1,596	77.3	273	13.2
Fumes, gases, vapors	1,080	2.0	108	10.0	124	11.5
Fungicides (non-medicinal)	45	0.1	27	60.0	3	6.7
Gastrointestinal preparations	963	1.8	823	85.5	46	4.8
Heavy metals (excluding iron)	256	0.5	89	34.8	40	15.6

Table 62
HUMAN EXPOSURE CALLS BY GENERIC SUBSTANCE CATEGORY* AND AGE GROUP
MINNESOTA, 1988 (CONT.)

Category Label	Total	Percent	<6 Years	Percent of Row Total	6-17 Years	Percent of Row Total
Herbicides	186	0.3	55	29.6	25	13.4
Hormones and hormone antagonists	546	1.0	414	75.8	43	7.9
Hydrocarbons	2,077	3.9	985	47.4	207	10.0
Information calls	61	0.1	37	60.7	4	6.6
Insecticides, pesticides	1,647	3.1	1,163	70.6	105	6.4
Lacrimators	159	0.3	57	35.8	49	30.8
Matches, fireworks, explosives	100	0.2	90	90.0	5	5.0
Miscellaneous prescription and over-the-counter drugs	196	0.4	113	57.7	10	5.1
Mothballs and other moth repellents	126	0.2	103	81.7	6	4.8
Muscle relaxants	137	0.3	35	25.5	17	12.4
Mushrooms	278	0.5	235	84.5	9	3.2
Paints, varnishes, lacquers	747	1.4	463	62.0	43	5.8
Photographic products	32	0.1	19	59.4	3	9.4
Plants	3,845	7.2	3,399	88.4	163	4.2
Polishes and waxes	155	0.3	128	82.6	3	1.9
Radioisotopes	1	0.0	1	100.0	-	0.0
Rodenticides	331	0.6	288	87.0	12	3.6
Sedatives, hypnotics, anti-anxiety, anti-psychotics	1,265	2.4	141	11.1	108	8.5
Serums, toxoids, vaccines	7	0.0	1	14.3	-	0.0
Sporting equipment	39	0.1	32	82.1	4	10.3
Stimulants and street drugs	958	1.8	167	17.4	234	24.4
Swimming pool and aquarium products	110	0.2	71	64.5	9	8.2
Tobacco products	464	0.9	443	95.5	9	1.9
Topicals	1,689	3.1	1,404	83.1	77	4.6
Veterinary drugs	63	0.1	36	57.1	4	6.3
Vitamins	1,512	2.8	1,323	87.5	116	7.7
Unknown drugs	783	1.5	319	40.7	92	11.7
Unknown substances (non-drug)	207	0.4	114	55.1	26	12.6
TOTAL*	53,726	100.0	33,132	61.7	5,111	9.5

* Total reflects that, in some cases, more than one substance was involved.

Population

POPULATION OF MINNESOTA[1]

Minnesota's population has grown steadily from 4,075,090 in 1980 to 4,306,550 in 1988 and has the highest rate of population increase in the Midwest since 1980. Its growth rate of 5.7 percent between 1980 and 1988 was slower than the national growth rate of 8.5 percent, but it exceeded that of any of its immediate neighbors. Among the fifty states, twenty-three states grew faster than Minnesota between 1980 and 1988. New Hampshire, Vermont and Maine are the only "Frostbelt" states which grew faster than Minnesota.

Minnesota remains twenty-first among the states in population size. In absolute numbers, Minnesota's addition of 230,580 people between 1980 and 1988 was surpassed by 15 other states including the "Frostbelt" states of New Jersey and New York.

Minnesota's population change is a result of two factors: natural increase (births minus deaths) and migration. Compared with other states, Minnesota has a stable population. **More people usually move out of the state than in, but relatively few move in either direction; natural increase has been the principal source of Minnesota's growth.** The birth rate has been declining since 1981. This decline, combined with a fairly stable death rate, is slowing the rate of natural increase. While outmigration is the norm, there can be periods of net inmigration. Slight inmigration occurred during the late 1970s. The data indicate that Minnesota experienced inmigration between 1986 and 1988, but the change is so small that the effects of estimation error cannot be ignored. However, it is clear that after a surge in net outmigration between 1982 and 1984, the rate of outmigration is returning to traditionally low levels.

Minnesota recorded approximately 535,200 births between April 1, 1980 and April 1, 1988. During the same period, approximately 271,800 deaths were recorded. The difference, or natural increase, was just under 263,400 persons. The highest rates of natural increase are found in the Twin Cities suburbs and the St. Cloud and Rochester areas, reflecting the large number of young families in these areas. The lowest rates of natural increase are found in southwestern Minnesota and some north-central counties. These areas have a high proportion of elderly residents. Norman and Aitkin Counties actually recorded more deaths than births between 1980 and 1988. **The number of counties experiencing natural decrease has risen during the decade.** In 1988, 19 counties reported more deaths than births.

Although natural increase added almost 263,400 people during the last eight years, the population of Minnesota increased by only 230,600 persons. The difference is due to the net outmigration of almost 32,800 persons. Sixty-two Minnesota counties experienced net outmigration between 1980 and 1988, while the remaining 25 counties received more people than they lost. The agricultural areas in the south and west and the Iron Range and lumbering areas of northeastern Minnesota had the highest rates of outmigration. Lake, Pennington, Red Lake, Koochiching, and St. Louis Counties had the highest net outmigration rates. Counties surrounding the Twin Cities (Dakota, Sherburne, Scott, Washington, Carver, Chisago, Isanti, Anoka and Wright Counties) and to the west (Hubbard, Douglas, and Kandiyohi Counties) and northwest (Otter Tail and Roseau Counties) had the highest rates of net inmigration.

---

[1] These data are derived from the 1980 census and estimates of the 1988 population of Minnesota counties, cities, and townships available from the Office of State Demographer. Adapted from "Population Notes, October, 1989," Minnesota State Planning Agency, Office of State Demographer.

The growth rate of the sixteen counties which comprise metropolitan Minnesota continues to accelerate. The metropolitan population grew by an average annual rate of 1.2 percent between 1983 and 1988 versus an average annual rate of 0.7 percent during the first three years of the decade. Over the eight-year period, the metropolitan population increased by 8.5 percent. Since 1980, the population in nonmetropolitan Minnesota grew only 0.5 percent. Between 1983 and 1988, the nonmetropolitan population actually declined by 0.6 percent.

Twelve of the twenty fastest growing counties in Minnesota are within the Twin Cities, St. Cloud or Rochester metropolitan areas. Many of the fastest growing nonmetropolitan counties are in the western lakes region of Minnesota stretching from Douglas County north to Roseau and Lake of the Woods Counties. Other fast-growing nonmetropolitan counties include Kandiyohi County in west-central Minnesota, Pine and Kanabec Counties located between Duluth and the Twin Cities, Nicollet County in south-central Minnesota and Crow Wing County in the north-central part of the state. Counties losing population are found in northeastern Minnesota and along the southern and western borders of the state.

The population of Dakota County increased by 30 percent between 1980 and 1988, making it the fastest growing county in Minnesota. Close behind were Sherburne and Scott Counties with population increases of 28 percent and 27 percent, respectively. Six other rapidly growing counties--Washington, Carver, Anoka, Chisago, Wright and Isanti--surround the Twin Cities. Roseau County, where a successful window manufacturer has turned Warroad into a boom town, is the only nonmetropolitan county which ranked among the ten fastest growing counties in Minnesota. Lake County, in northeastern Minnesota, had the highest rate of population loss since 1980. Other counties with high rates of population loss include Pennington, Koochiching, Traverse, and St. Louis.

Between 1970 and 1980, 31 counties recorded population losses. Between 1980 and 1988, the number losing population increased to 40. St. Louis County suffered the largest absolute population loss since the 1980 Census of all Minnesota counties--22,202 persons. Thirteen other counties located either in northeastern Minnesota or in the farming areas of southern and western Minnesota experienced population losses exceeding 1,000 persons during the past eight years.

Seventeen counties are growing as rapidly (or declining less rapidly) than they did during the 1970s, while the rate of growth has slowed (or the rate of decline increased) in the remaining 70. Many counties which experienced extreme population increases or decreases during the 1970s have seen their growth rates moderate in the 1980s. Sherburne, Wright, Chisago and Isanti Counties are still among the fastest growing counties in the state, but they are growing at a much slower rate than during the 1970s. Likewise, several counties in north-central Minnesota which experienced rapid growth in the 1970s are now growing at a reduced rate. On the other hand, Hennepin, Ramsey, Mower and several agricultural counties in southwestern and western Minnesota which suffered large population losses during the 1970s have slowed or even reversed those losses.

Please refer to Technical Notes, page 4, for explanation of methodology used to produce age and sex estimates by county.

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
STATE TOTAL	4,306,550	350,332	622,052	773,593	1,281,731	747,481	531,361
MALE	2,116,891	179,661	319,785	388,752	646,363	367,825	214,505
FEMALE	2,189,659	170,671	302,267	384,841	635,368	379,656	316,856
NORTHWESTERN REGION	162,743	13,074	26,361	27,026	40,701	29,376	26,205
MALE	81,844	6,695	13,965	14,045	20,878	14,657	11,604
FEMALE	80,899	6,379	12,396	12,981	19,823	14,719	14,601
NORTHEASTERN REGION	315,750	23,053	45,809	51,481	85,984	57,542	51,881
MALE	157,331	12,073	24,298	26,384	44,435	28,634	21,507
FEMALE	158,419	10,980	21,511	25,097	41,549	28,908	30,374
WEST CENTRAL REGION	209,518	17,062	30,947	37,290	51,826	39,462	32,931
MALE	103,532	8,805	15,469	19,053	26,471	19,607	14,127
FEMALE	105,986	8,257	15,478	18,237	25,355	19,855	18,804
CENTRAL REGION	498,182	45,684	83,198	88,197	134,925	83,456	62,722
MALE	249,215	23,580	42,779	44,928	68,777	42,005	27,146
FEMALE	248,967	22,104	40,419	43,269	66,148	41,451	35,576
SOUTHWESTERN REGION	298,978	25,071	45,096	46,755	73,469	56,315	52,272
MALE	148,394	13,028	23,418	24,140	37,780	27,934	22,094
FEMALE	150,584	12,043	21,678	22,615	35,689	28,381	30,178
SOUTH CENTRAL REGION	221,036	18,050	31,399	42,342	56,583	38,893	33,769
MALE	109,357	9,247	16,627	21,226	29,455	19,080	13,722
FEMALE	111,679	8,803	14,772	21,116	27,128	19,813	20,047
SOUTHEASTERN REGION	418,162	34,781	60,892	74,875	115,218	74,034	58,362
MALE	204,122	17,878	31,194	36,004	58,547	36,670	23,829
FEMALE	214,040	16,903	29,698	38,871	56,671	37,364	34,533
METROPOLITAN REGION	2,182,181	173,557	298,350	405,627	723,025	368,403	213,219
MALE	1,063,096	88,355	152,035	202,972	360,020	179,238	80,476
FEMALE	1,119,085	85,202	146,315	202,655	363,005	189,165	132,743

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
AITKIN	13,332	932	1,924	1,814	2,993	2,673	2,996
MALE	6,631	530	926	1,006	1,456	1,332	1,381
FEMALE	6,701	402	998	808	1,537	1,341	1,615
ANOKA	229,648	21,067	41,569	41,526	82,318	34,369	8,799
MALE	115,757	10,777	21,628	20,920	41,626	17,225	3,581
FEMALE	113,891	10,290	19,941	20,606	40,692	17,144	5,218
BECKER	31,428	2,820	5,155	4,544	8,345	6,020	4,544
MALE	15,906	1,505	2,649	2,509	4,177	3,078	1,988
FEMALE	15,522	1,315	2,506	2,035	4,168	2,942	2,556
BELTRAMI	34,102	2,768	5,419	7,508	8,709	5,723	3,975
MALE	17,302	1,375	2,965	3,845	4,534	2,890	1,693
FEMALE	16,800	1,393	2,454	3,663	4,175	2,833	2,282
BENTON	28,434	2,924	4,562	5,775	8,197	4,416	2,560
MALE	14,171	1,486	2,323	2,856	4,164	2,234	1,108
FEMALE	14,263	1,438	2,239	2,919	4,033	2,182	1,452
BIG STONE	7,491	623	1,133	1,115	1,556	1,495	1,569
MALE	3,720	330	577	605	823	731	654
FEMALE	3,771	293	556	510	733	764	915
BLUE EARTH	52,917	3,926	6,720	14,307	13,349	7,970	6,645
MALE	25,521	2,047	3,409	6,781	6,890	3,854	2,540
FEMALE	27,396	1,879	3,311	7,526	6,459	4,116	4,105
BROWN	28,161	2,204	3,814	5,241	6,682	5,326	4,894
MALE	13,487	1,122	2,063	2,485	3,228	2,609	1,980
FEMALE	14,674	1,082	1,751	2,756	3,454	2,717	2,914
CARLTON	28,600	2,234	4,503	4,626	7,408	5,263	4,566
MALE	14,434	1,173	2,383	2,454	3,798	2,652	1,974
FEMALE	14,166	1,061	2,120	2,172	3,610	2,611	2,592

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
CARVER	44,597	4,134	7,090	8,485	14,290	7,136	3,462
MALE	22,850	2,166	3,816	4,535	7,306	3,633	1,394
FEMALE	21,747	1,968	3,274	3,950	6,984	3,503	2,068
CASS	21,188	1,616	3,212	2,727	4,857	4,692	4,084
MALE	10,697	804	1,555	1,514	2,533	2,353	1,938
FEMALE	10,491	812	1,657	1,213	2,324	2,339	2,146
CHIPPEWA	14,318	1,196	2,004	2,092	3,537	2,892	2,597
MALE	7,196	605	1,082	1,106	1,908	1,411	1,084
FEMALE	7,122	591	922	986	1,629	1,481	1,513
CHISAGO	29,868	2,932	5,246	4,839	8,353	4,800	3,698
MALE	15,156	1,561	2,738	2,539	4,317	2,362	1,639
FEMALE	14,712	1,371	2,508	2,300	4,036	2,438	2,059
CLAY	49,724	3,792	6,658	13,186	12,589	7,837	5,662
MALE	24,343	1,880	3,257	6,351	6,645	3,898	2,312
FEMALE	25,381	1,912	3,401	6,835	5,944	3,939	3,350
CLEARWATER	9,009	772	1,617	1,296	2,153	1,547	1,624
MALE	4,609	414	824	725	1,127	756	763
FEMALE	4,400	358	793	571	1,026	791	861
COOK	4,245	282	622	551	1,296	842	652
MALE	2,065	142	328	271	628	419	277
FEMALE	2,180	140	294	280	668	423	375
COTTONWOOD	13,487	1,070	1,916	1,873	3,101	2,697	2,830
MALE	6,622	589	875	981	1,639	1,369	1,169
FEMALE	6,865	481	1,041	892	1,462	1,328	1,661
CROW WING	44,141	3,514	6,632	6,440	10,764	8,740	8,051
MALE	21,355	1,851	3,293	3,347	5,144	4,219	3,501
FEMALE	22,786	1,663	3,339	3,093	5,620	4,521	4,550

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
DAKOTA	252,690	23,153	43,250	42,169	91,892	38,705	13,521
MALE	125,713	11,639	22,109	21,349	45,475	19,620	5,521
FEMALE	126,977	11,514	21,141	20,820	46,417	19,085	8,000
DODGE	15,237	1,584	2,700	2,385	4,254	2,268	2,046
MALE	7,688	788	1,359	1,265	2,233	1,154	889
FEMALE	7,549	796	1,341	1,120	2,021	1,114	1,157
DOUGLAS	30,285	2,524	4,383	4,919	7,555	5,691	5,213
MALE	14,769	1,259	2,197	2,463	3,795	2,807	2,248
FEMALE	15,516	1,265	2,186	2,456	3,760	2,884	2,965
FARIBAULT	18,141	1,471	2,708	2,387	3,963	3,847	3,765
MALE	8,729	754	1,442	1,262	1,947	1,820	1,504
FEMALE	9,412	717	1,266	1,125	2,016	2,027	2,261
FILLMORE	21,354	1,688	3,230	3,143	4,914	4,036	4,343
MALE	10,687	959	1,742	1,588	2,506	1,978	1,914
FEMALE	10,667	729	1,488	1,555	2,408	2,058	2,429
FREEBORN	34,674	2,667	5,105	5,483	8,661	6,950	5,808
MALE	16,945	1,340	2,518	2,860	4,437	3,421	2,369
FEMALE	17,729	1,327	2,587	2,623	4,224	3,529	3,439
GOODHUE	40,829	3,599	6,360	6,012	11,186	7,577	6,095
MALE	20,357	1,864	3,353	3,189	5,677	3,768	2,506
FEMALE	20,472	1,735	3,007	2,823	5,509	3,809	3,589
GRANT	6,957	521	1,035	933	1,526	1,370	1,572
MALE	3,449	297	548	495	730	692	687
FEMALE	3,508	224	487	438	796	678	885
HENNEPIN	989,956	69,424	113,351	189,887	325,638	175,138	116,518
MALE	476,344	34,944	57,758	94,619	161,160	84,488	43,375
FEMALE	513,612	34,480	55,593	95,268	164,478	90,650	73,143

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
HOUSTON	19,221	1,605	2,959	2,995	5,069	3,642	2,951
MALE	9,772	886	1,499	1,617	2,687	1,824	1,259
FEMALE	9,449	719	1,460	1,378	2,382	1,818	1,692
HUBBARD	15,602	1,198	2,605	2,209	4,030	2,834	2,726
MALE	7,534	511	1,290	1,081	1,961	1,431	1,260
FEMALE	8,068	687	1,315	1,128	2,069	1,403	1,466
ISANTI	26,991	2,424	5,075	4,167	8,618	4,151	2,556
MALE	13,129	1,238	2,517	2,097	4,103	2,096	1,078
FEMALE	13,862	1,186	2,558	2,070	4,515	2,055	1,478
ITASCA	42,834	3,444	7,155	6,489	11,696	7,624	6,426
MALE	21,940	1,878	4,025	3,349	6,020	3,808	2,860
FEMALE	20,894	1,566	3,130	3,140	5,676	3,816	3,566
JACKSON	12,900	1,158	1,873	2,001	3,270	2,460	2,138
MALE	6,482	641	933	1,058	1,780	1,183	887
FEMALE	6,418	517	940	943	1,490	1,277	1,251
KANABEC	12,989	1,211	2,287	1,949	3,424	2,387	1,731
MALE	6,484	638	1,173	1,031	1,705	1,173	764
FEMALE	6,505	573	1,114	918	1,719	1,214	967
KANDIYOHI	40,542	3,363	5,877	7,702	10,936	7,019	5,645
MALE	19,919	1,705	2,993	3,709	5,554	3,550	2,408
FEMALE	20,623	1,658	2,884	3,993	5,382	3,469	3,237
KITTSON	6,460	522	851	859	1,641	1,356	1,231
MALE	3,208	277	431	418	846	681	555
FEMALE	3,252	245	420	441	795	675	676
KOOCHICHING	15,637	1,221	2,552	2,506	3,913	2,959	2,486
MALE	7,799	623	1,349	1,283	1,967	1,476	1,101
FEMALE	7,838	598	1,203	1,223	1,946	1,483	1,385

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
LAC QUI PARLE	9,796	790	1,418	1,362	2,219	2,012	1,995
MALE	4,908	413	687	742	1,188	1,010	868
FEMALE	4,888	377	731	620	1,031	1,002	1,127
LAKE	11,075	787	1,586	1,662	3,001	2,331	1,708
MALE	5,888	450	819	950	1,655	1,259	755
FEMALE	5,187	337	767	712	1,346	1,072	953
LAKE OF THE WOODS	3,941	284	554	560	998	827	718
MALE	2,001	168	306	294	519	381	333
FEMALE	1,940	116	248	266	479	446	385
LESUEUR	23,660	2,092	3,762	3,356	6,421	4,322	3,707
MALE	11,977	1,005	1,967	1,822	3,434	2,161	1,588
FEMALE	11,683	1,087	1,795	1,534	2,987	2,161	2,119
LINCOLN	7,671	584	1,204	1,035	1,589	1,582	1,677
MALE	3,832	270	635	564	821	802	740
FEMALE	3,839	314	569	471	768	780	937
LYON	25,704	2,282	3,910	4,998	6,462	4,175	3,877
MALE	12,725	1,239	2,048	2,436	3,311	2,047	1,644
FEMALE	12,979	1,043	1,862	2,562	3,151	2,128	2,233
MCLEOD	30,914	2,838	4,884	4,740	8,509	5,402	4,541
MALE	15,234	1,500	2,609	2,358	4,239	2,662	1,866
FEMALE	15,680	1,338	2,275	2,382	4,270	2,740	2,675
MAHNOMEN	5,576	451	1,092	847	1,238	1,024	924
MALE	2,888	223	573	476	650	530	436
FEMALE	2,688	228	519	371	588	494	488
MARSHALL	12,359	1,021	2,133	1,688	3,026	2,362	2,129
MALE	6,385	597	1,129	884	1,576	1,216	983
FEMALE	5,974	424	1,004	804	1,450	1,146	1,146

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
MARTIN	23,679	1,913	3,443	3,547	5,971	4,390	4,415
MALE	12,032	1,032	1,942	1,914	3,202	2,148	1,794
FEMALE	11,647	881	1,501	1,633	2,769	2,242	2,621
MEEKER	21,181	1,922	3,452	3,082	5,311	4,038	3,376
MALE	10,757	1,009	1,854	1,644	2,777	2,026	1,447
FEMALE	10,424	913	1,598	1,438	2,534	2,012	1,929
MILLE LACS	19,033	1,775	2,956	2,784	4,691	3,348	3,479
MALE	9,636	1,000	1,575	1,522	2,385	1,611	1,543
FEMALE	9,397	775	1,381	1,262	2,306	1,737	1,936
MORRISON	30,478	2,937	5,300	4,957	7,118	5,529	4,637
MALE	15,171	1,511	2,737	2,559	3,567	2,783	2,014
FEMALE	15,307	1,426	2,563	2,398	3,551	2,746	2,623
MOWER	38,860	2,936	5,466	5,513	8,746	8,723	7,476
MALE	18,749	1,529	2,717	2,764	4,480	4,189	3,070
FEMALE	20,111	1,407	2,749	2,749	4,266	4,534	4,406
MURRAY	10,566	829	1,787	1,455	2,417	2,145	1,933
MALE	5,304	412	956	774	1,280	1,041	841
FEMALE	5,262	417	831	681	1,137	1,104	1,092
NICOLLET	28,810	2,326	4,184	6,670	8,385	4,398	2,847
MALE	14,747	1,172	2,190	3,407	4,589	2,230	1,159
FEMALE	14,063	1,154	1,994	3,263	3,796	2,168	1,688
NOBLES	21,410	1,627	3,073	3,310	5,288	4,329	3,783
MALE	10,285	798	1,498	1,752	2,535	2,150	1,552
FEMALE	11,125	829	1,575	1,558	2,753	2,179	2,231
NORMAN	8,882	732	1,464	1,124	1,964	1,844	1,754
MALE	4,335	322	785	580	962	899	787
FEMALE	4,547	410	679	544	1,002	945	967

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
OLMSTED	101,974	8,561	13,897	19,555	33,249	16,779	9,933
MALE	48,576	4,388	7,280	8,380	16,495	8,392	3,641
FEMALE	53,398	4,173	6,617	11,175	16,754	8,387	6,292
OTTER TAIL	55,453	4,462	8,476	7,841	13,738	11,401	9,535
MALE	27,259	2,365	4,168	4,093	6,846	5,635	4,152
FEMALE	28,194	2,097	4,308	3,748	6,892	5,766	5,383
PENNINGTON	13,522	1,083	1,982	2,381	3,570	2,214	2,292
MALE	6,680	589	1,007	1,216	1,824	1,076	968
FEMALE	6,842	494	975	1,165	1,746	1,138	1,324
PINE	21,363	1,717	3,454	3,019	5,709	4,072	3,392
MALE	11,065	886	1,788	1,637	3,099	2,155	1,500
FEMALE	10,298	831	1,666	1,382	2,610	1,917	1,892
PIPESTONE	10,980	890	1,638	1,574	2,458	2,203	2,217
MALE	5,296	423	829	840	1,226	1,078	900
FEMALE	5,684	467	809	734	1,232	1,125	1,317
POLK	33,727	2,544	5,362	5,585	8,248	6,183	5,805
MALE	16,835	1,365	2,902	2,920	4,203	3,018	2,427
FEMALE	16,892	1,179	2,460	2,665	4,045	3,165	3,378
POPE	11,629	1,013	1,777	1,434	2,621	2,518	2,266
MALE	5,764	525	877	737	1,379	1,243	1,003
FEMALE	5,865	488	900	697	1,242	1,275	1,263
RAMSEY	472,683	38,273	57,111	91,543	141,979	83,714	60,063
MALE	225,818	19,792	28,620	44,877	71,240	39,192	22,097
FEMALE	246,865	18,481	28,491	46,666	70,739	44,522	37,966
RED LAKE	4,942	398	930	760	1,140	811	903
MALE	2,445	190	451	395	597	397	415
FEMALE	2,497	208	479	365	543	414	488

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
REDWOOD	18,209	1,424	2,918	2,542	4,467	3,281	3,577
MALE	9,201	722	1,555	1,403	2,331	1,667	1,523
FEMALE	9,008	702	1,363	1,139	2,136	1,614	2,054
RENVILLE	18,969	1,565	2,947	2,625	4,414	3,893	3,525
MALE	9,430	786	1,592	1,390	2,237	1,919	1,506
FEMALE	9,539	779	1,355	1,235	2,177	1,974	2,019
RICE	48,220	3,980	6,955	10,997	13,253	7,388	5,647
MALE	23,524	1,919	3,456	5,470	6,679	3,704	2,296
FEMALE	24,696	2,061	3,499	5,527	6,574	3,684	3,351
ROCK	10,339	924	1,570	1,472	2,515	2,015	1,843
MALE	4,946	477	775	715	1,222	987	770
FEMALE	5,393	447	795	757	1,293	1,028	1,073
ROSEAU	14,621	1,301	2,352	2,209	3,984	2,651	2,124
MALE	7,622	664	1,302	1,211	2,079	1,382	984
FEMALE	6,999	637	1,050	998	1,905	1,269	1,140
ST LOUIS	200,027	14,153	27,467	33,833	55,677	35,850	33,047
MALE	98,574	7,277	14,468	17,071	28,911	17,688	13,159
FEMALE	101,453	6,876	12,999	16,762	26,766	18,162	19,888
SCOTT	55,727	5,416	10,524	9,576	18,596	8,028	3,587
MALE	28,315	2,783	5,535	5,000	9,381	4,102	1,514
FEMALE	27,412	2,633	4,989	4,576	9,215	3,926	2,073
SHERBURNE	38,277	3,556	7,523	6,294	12,843	5,353	2,708
MALE	19,233	1,766	3,774	3,362	6,483	2,695	1,153
FEMALE	19,044	1,790	3,749	2,932	6,360	2,658	1,555
SIBLEY	15,369	1,321	2,557	2,259	3,703	2,992	2,537
MALE	7,731	678	1,345	1,177	1,965	1,462	1,104
FEMALE	7,638	643	1,212	1,082	1,738	1,530	1,433

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
STEARNS	118,957	10,629	18,180	28,499	30,195	18,786	12,668
MALE	59,853	5,634	9,607	13,959	15,874	9,565	5,214
FEMALE	59,104	4,995	8,573	14,540	14,321	9,221	7,454
STEELE	31,087	2,863	4,560	5,069	8,817	5,554	4,224
MALE	15,278	1,433	2,252	2,500	4,588	2,710	1,795
FEMALE	15,809	1,430	2,308	2,569	4,229	2,844	2,429
STEVENS	11,054	865	1,488	2,515	2,472	1,942	1,772
MALE	5,590	443	774	1,341	1,375	916	741
FEMALE	5,464	422	714	1,174	1,097	1,026	1,031
SWIFT	12,096	961	1,895	1,897	2,602	2,280	2,461
MALE	6,208	542	1,046	1,034	1,401	1,111	1,074
FEMALE	5,888	419	849	863	1,201	1,169	1,387
TODD	25,353	2,463	4,228	4,003	5,900	4,799	3,960
MALE	12,881	1,299	2,234	2,154	3,024	2,453	1,717
FEMALE	12,472	1,164	1,994	1,849	2,876	2,346	2,243
TRAVERSE	4,961	370	707	733	981	1,107	1,063
MALE	2,463	200	373	389	490	556	455
FEMALE	2,498	170	334	344	491	551	608
WABASHA	19,381	1,659	2,922	3,040	4,809	3,480	3,471
MALE	9,819	838	1,486	1,586	2,557	1,842	1,510
FEMALE	9,562	821	1,436	1,454	2,252	1,638	1,961
WADENA	13,741	979	2,480	1,928	3,220	2,578	2,556
MALE	6,498	445	1,143	1,004	1,571	1,224	1,111
FEMALE	7,243	534	1,337	924	1,649	1,354	1,445
WASECA	18,848	1,834	2,665	3,001	5,256	3,322	2,770
MALE	9,473	930	1,448	1,557	2,695	1,677	1,166
FEMALE	9,375	904	1,217	1,444	2,561	1,645	1,604

Table 63

POPULATION ESTIMATES* BY REGION, COUNTY, CITIES OVER 90,000**, AND SEX
MINNESOTA, 1988

	TOTAL	UNDER 5	5-14 YRS.	15-24 YRS.	25-44 YRS.	45-64 YRS.	65 & OVER
WASHINGTON	136,880	12,090	25,455	22,441	48,312	21,313	7,269
MALE	68,299	6,254	12,569	11,672	23,832	10,978	2,994
FEMALE	68,581	5,836	12,886	10,769	24,480	10,335	4,275
WATONWAN	11,451	963	1,546	1,574	2,853	2,326	2,189
MALE	5,660	507	821	821	1,505	1,119	887
FEMALE	5,791	456	725	753	1,348	1,207	1,302
WILKIN	8,027	695	1,268	1,185	1,999	1,576	1,304
MALE	3,989	331	626	675	1,034	782	541
FEMALE	4,038	364	642	510	965	794	763
WINONA	47,325	3,639	6,738	10,683	12,260	7,637	6,368
MALE	22,727	1,934	3,532	4,785	6,208	3,688	2,580
FEMALE	24,598	1,705	3,206	5,898	6,052	3,949	3,788
WRIGHT	67,369	7,007	12,063	10,816	21,036	9,805	6,642
MALE	33,886	3,461	6,322	5,347	10,808	5,082	2,866
FEMALE	33,483	3,546	5,741	5,469	10,228	4,723	3,776
YELLOW MEDICINE	12,405	1,025	1,597	1,880	2,818	2,397	2,688
MALE	6,329	567	874	1,029	1,508	1,190	1,161
FEMALE	6,076	458	723	851	1,310	1,207	1,527
MINNEAPOLIS	355,800	23,464	30,822	74,064	113,985	54,893	58,572
MALE	168,232	11,803	15,642	36,582	58,243	25,445	20,517
FEMALE	187,568	11,661	15,180	37,482	55,742	29,448	38,055
ST PAUL	265,100	21,307	28,660	51,080	75,186	45,496	43,371
MALE	124,049	10,936	14,446	24,623	38,061	20,509	15,474
FEMALE	141,051	10,371	14,214	26,457	37,125	24,987	27,897
DULUTH	82,899	5,251	10,031	15,739	22,135	14,105	15,638
MALE	39,224	2,660	5,294	7,630	11,292	6,700	5,648
FEMALE	43,675	2,591	4,737	8,109	10,843	7,405	9,990

---

*Prepared by MCHS using State Demographer's county totals as input.

**As of 1980 Census.

Appendix

APPENDIX A

DEFINITIONS

DEMOGRAPHIC, INDUCED ABORTION AND VITAL RECORDS DEFINITIONS

ABORTION, INDUCED:

The intentional, premature removal from the uterus of a non-viable fetus.

ABORTION PROCEDURES:

Dilation and curettage (sharp curettage): Mechanical dilation of the cervix with removal of the uterine contents by scraping the uterine wall with a surgical curette.

(Dilation and Evacuation, D & E) (Laminaria and curettage): Dilation of the cervix by insertion of laminaria several hours before removal of uterine contents by suction and sharp curettage.

Hysterectomy/hysterotomy: Removal of the fetus by means of a surgical incision made in the uterine wall. In the case of hysterectomy, the entire uterus is removed.

Menstrual extraction (m. regulation, m. induction): Evacuation of the uterine contents by suction curettage, usually before the diagnosis of pregnancy is reliable. Urine pregnancy test may be negative (-) or positive (+).

Prostaglandin: Induction of labor by injection of a prostaglandin (naturally occurring hormone) solution into the amniotic sac. Laminaria are often inserted in the cervix several hours before the injection to aid dilation. Other hormones may be given intravenously to assist labor.

Saline/fluid exchange: Induction of labor by injection of a sterile salt solution into the amniotic sac. Laminaria are often inserted in the cervix several hours before the injection to aid dilation.

Vacuum curettage: Mechanical dilation of the cervix with removal of the uterine contents by low pressure suction created by an electric suction pump.

ABORTION, RESIDENT:

Abortions to Minnesota residents which occurred in Minnesota and were reported during this surveillance period.

CAUSE OF DEATH:

The Ninth Revision of the International Classification of Diseases (ICD) was used.

COMPLICATIONS OF INDUCED ABORTION:

Any unfavorable condition related to the abortion as reported by the provider facility including: hemorrhage (more than 500 ml), pelvic infection, fever, cervical injury, uterine perforation, or retained tissue.

CURETTE:

A spoon-shaped surgical instrument.

CURETTAGE:

The removal of material from the uterine wall with a curette. Also, the induction of endometrial bleeding by administration and withdrawal of any progestational agent.

FETAL DEATH:

Fetal death is death prior to the complete expulsion or extraction of a product of conception from its mother, irrespective of the duration of pregnancy. The death is indicated by the fact that, after such expulsion or extraction, the fetus does not breathe or show any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles. In this summary only the fetal deaths of 20 weeks or more are reported.

FETAL DEATH ORDER:

The number of fetal deaths including the current fetal death.

GESTATION:

The period of development of the fetus, expressed in completed weeks, calculated from the first day of the last menstrual period (LMP).

HIGH RISK BIRTH:

A birth is classified as high risk if any of the following conditions exist:

Mother's age: Less than 17 years or over 39 years.
Prenatal care: Less than 3 visits.
Condition not related to pregnancy: Tuberculosis, rubella, diabetes, cardiac condition, or urinary tract infection.
Condition related to pregnancy: Hydramnios or toxemia.
Condition of Labor: Prolonged labor.
Birth weight: 2,499 grams or less (5 lb. 8 oz.)
Birth injury: To brain, spinal cord, fractures, other bone injury, paralysis, or nerve injuries.
Birth condition: Hemolytic diseases of newborn, hyaline membrane D, respiratory distress syndrome, or atelectasis.
Congenital anomaly

INFANT DEATH:

A death under one year of age.

LAMINARIA:

Sterile, dried marine plant stems which are capable of expanding with fluid absorption.

LIVE BIRTH:

Live birth means the complete expulsion or extraction from its mother of a product of conception, irrespective of the duration of pregnancy, which after such separation breathes or shows any other evidence of life such as beating of the heart, pulsation of the umbilical cord, or definite movement of voluntary muscles, whether or not the umbilical cord has been cut or the placenta is attached. Each product of such a birth is considered a live born.

LIVE BIRTH ORDER:

The number of live births including the current birth.

MATERNAL DEATH:

Maternal death is a death attributable to delivery or a complication of pregnancy, childbirth, or the puerperium, as defined by the International Classification of Diseases.

NEONATAL DEATH:

A death to an infant under 28 days of age.

RATE:

Rates are given per 1,000 except for certain causes of death when they are stated as per 100,000. See Technical Notes, page 10 for explanations of specific rates included in this report.

REGION:

Region refers to the eight Minnesota Department of Health Districts. Region names and counties within regions follow:

Northwestern: Beltrami, Clearwater, Hubbard, Kittson, Lake of the Woods, Mahnomen, Marshall, Norman, Pennington, Polk, Red Lake and Roseau

Northeastern: Aitkin, Carlton, Cook, Itasca, Koochiching, Lake, and St. Louis

West Central: Becker, Clay, Douglas, Grant, Otter Tail, Pope, Stevens, Traverse, and Wilkin

Central: Benton, Cass, Chisago, Crow Wing, Isanti, Kanabec, Mille Lacs, Morrison, Pine, Sherburne, Stearns, Todd, Wadena, and Wright

Southwestern: Big Stone, Chippewa, Cottonwood, Jackson, Kandiyohi, Lac Qui Parle, Lincoln, Lyon, McLeod, Meeker, Murray, Nobles, Pipestone, Redwood, Renville, Rock, Swift, and Yellow Medicine

South Central: Blue Earth, Brown, Faribault, Le Sueur, Martin, Nicollet, Sibley, Waseca, and Watonwan

Southeastern: Dodge, Fillmore, Freeborn, Goodhue, Houston, Mower, Olmsted, Rice, Steele, Wabasha, and Winona

Metropolitan: Anoka, Carver, Dakota, Hennepin, Ramsey, Scott, and Washington.

RESIDENCE:

This is the geographic area of the usual place of abode of the deceased at the time of death, of the mother in the case of live births or fetal deaths, and of the induced abortion recipient. This means, in general, the place where one lives and sleeps most of the time. However, when usual residence is in a nursing home or other institution, where the patient resided for the purpose of receiving care, residence is coded to the place where the patient lived prior to admission to the institution.

RESIDENT PERCENTAGE, REPORTED INDUCED ABORTIONS:

The number of Minnesota residents receiving induced abortions per 100 total reported induced abortions occurring in Minnesota. Most tables relating to abortions include resident percentages pertinent to selected variables contained within the individual tables.

TRIMESTER:

One third of the total gestational period necessary for a full-term pregnancy. Thirteen weeks are allotted to each trimester. The count of weeks begins with the first day of the last menstrual period.

RATE DEFINITIONS

ABORTION RATE:

The number of induced abortions per 1,000 females in the population of age 15 through 44 years.

AGE/SEX SPECIFIC DEATH RATE:

Number of deaths from a specified cause within a specified age group per 100,000 population in the same age group.

AGE/SEX ADJUSTED DEATH RATE:

Total rates for counties and cities are adjusted for age and sex on the basis of the state population.

AGE-SPECIFIC PREGNANCY RATE:

Number of live births plus fetal deaths plus induced abortions to women in a specified age group per 1,000 females in the population comprising the same specified age group.

CRUDE BIRTH RATE:

Number of live births per 1,000 population.

CRUDE DEATH RATE:

Number of deaths per 1,000 population.

FERTILITY RATE:

Total number of live births per 1,000 females in the population of age 15 through 44 years.

INFANT DEATH RATE:

Deaths under one year of age per 1,000 live births.

NEONATAL DEATH RATE:

Number of infants dying under 28 days of age per 1,000 live births.

OCCUPATIONAL INJURY AND ILLNESS RATE:

Number of reported injuries or illnesses in a given industrial category per 1,000 workers in the same industrial category. The state rate is calculated excluding agricultural industry categories.

PERINATAL DEATH RATE:

Number of fetal deaths of 20 weeks or more gestation plus the number of neonatal deaths (deaths to infants under 28 days of age) per 1,000 live births.

PREGNANCY RATE:

Number of live births plus the number of fetal deaths plus the number of induced abortions per 1,000 females in the population of age 15 through 44 years.

SEX ADJUSTED-AGE SPECIFIC DEATH RATE:

Specific age group rates for counties and cities have been adjusted for sex on the basis of the state population for the specific age group.

POISON DATA DEFINITIONS

ACCIDENTAL:

An action that results in an unintended poisoning or exposure.

ACCIDENTAL - ENVIRONMENTAL:

A passive exposure resulting from an unknown or unexpected contaminant in the environment excluding those exposures related to the job itself.

ACCIDENTAL - GENERAL:

All unintended poisonings or exposures that are not otherwise specified, including most accidental exposures in children, all unintended bites, stings, plant exposures, food poisonings, and lead paint ingestions.

ACCIDENTAL - MISUSE:

An accidental exposure which results from the improper or incorrect use of a substance where therapeutic results were intended.

ACCIDENTAL - OCCUPATIONAL:

An accidental exposure which occurs in an industrial or work related setting, excluding those exposures related to the environment and not the work process.

ACUTE:

A single exposure occurring over a relatively short period of time. It would be rare for an acute exposure to occur over a period greater than 8 hours.

ADVERSE REACTION:

An unexpected reaction to a drug, food or other agent where the patient was experiencing an unwanted effect which is due to an allergic, hypersensitive, or idiosyncratic response at normal doses or with normal use.

ASYMPTOMATIC:

The patient has no symptoms whatsoever (subjective or objective).

BITE/STING:

An exposure resulting from the bite or sting of an animal.

CHRONIC:

A repeated exposure to the same toxic substance or a single exposure lasting longer than 8 hours.

DERMAL:

An exposure involving the skin, hair, fingernails, or clothing where irritation or transcutaneous absorption may occur.

DRUG INFORMATION:

Problems of an informational nature about drugs such as dosage, indications, contraindications, side effects, or adverse effects. The problem does not involve a poisoning, overdose or adverse reaction.

EXPOSURE:

Suspected contact with any substance(s) which when ingested, inhaled, absorbed, applied to, injected into, or developed within the body may cause damage to structure or disturbance of function to living tissue.

HEALTH CARE FACILITY:

Any emergency department, hospital, first aid station, ambulance, clinic or medical office.

INGESTION:

An exposure by the oral route, including exposures where the material was put in the mouth but was unlikely to have reached the stomach.

INHALATION:

An exposure by the pulmonary (tracheal or nasal) route. This route usually pertains to gaseous or vaporized agents.

INTENTIONAL:

A purposeful action.

INTENTIONAL - MISUSE:

An exposure resulting from the intentional, improper or incorrect use of a substance where the victim was likely attempting to gain a high, euphoric or other psychotropic effect.

OCULAR:

An exposure involving the eyeball or any of its contiguous structures.

OUTCOME - MAJOR EFFECT:

The patient exhibited some symptoms as a result of the exposure. The symptoms were life-threatening, or resulted in disfigurement or residual disability.

OUTCOME - MINOR EFFECT:

The patient exhibited some symptoms as a result of the exposure but those symptoms were not life-threatening. The symptoms resolved rapidly and usually involve skin or mucous membrane manifestations. The patient returned to pre-exposure state of well-being and has no residual disability or disfigurement.

OUTCOME - MODERATE EFFECT:

The patient exhibited signs as a result of the exposure which were more pronounced, more prolonged or more of a systemic nature than minor symptoms. Usually some form of treatment was or would have been indicated.

OUTCOME - NO EFFECT:

The patient developed no symptoms as a result of the exposure.

OUTCOME - UNKNOWN (NON-TOXIC EXPOSURE):

The patient was lost to follow-up; however, it was estimated that the exposure was likely to be non-toxic because the agent involved was non-toxic or the amount (or route) was insignificant and unlikely to cause toxicity.

OUTCOME - UNKNOWN (POTENTIALLY TOXIC EXPOSURE):

The patient was lost to follow-up and it was estimated that the exposure was significant and may have resulted in toxic manifestations.

PARENTERAL:

An exposure resulting from the injection of a substance into the body.

POISON INFORMATION:

Questions related to toxicology but not involving a victim.

RESIDENCE:

Any house, domicile or nearby phone used to serve the residence.

SCHOOL:

Any school (or university) classroom, schoolyard, or school-sponsored activity.

SUICIDAL:

An exposure resulting from the inappropriate use of a substance for self destructive or manipulative reasons.

SYMPTOMATIC, RELATED:

The patient was experiencing symptoms which were (or reasonably may have been) related to the exposure.

SYMPTOMATIC, UNRELATED:

The patient was experiencing symptoms which preceded the exposure or were of such a nature that they were unlikely to be related to the exposure.

WORKPLACE:

Any shop, building, office or non-residential room where a person is employed.

OCCUPATIONAL ILLNESS AND INJURY DEFINITIONS

DAY OF OCCURRENCE:

Day of Occurrence specifies the day of the injury or the day of the diagnosis or onset of illness.

INDUSTRY:

Industry codes identify the business of the injured or ill worker's employer. The Standard Industrial Classification (SIC) system is the only acceptable coding system for industry.

MONTH OF OCCURRENCE:

Month of Occurrence specifies the month of injury or the month of the diagnosis or onset of illness.

NATURE OF INJURY OR ILLNESS:

Nature of Injury or Illness identifies the injury or illness in terms of its principal physical or mental characteristics.

OCCUPATION:

Occupation is coded according to the 1980 edition of the 3-digit Census Occupational Classification System (COCS) coding structure.

OWNERSHIP:

Ownership codes are as follows: Private sector--50, State government--20, Local government--30. If the SIC is 9100-9721, then the Ownership code must be 20 or 30. If SIC is 0110-8999 or 9999, Ownership code must be 20, 30, or 50.

PART OF BODY AFFECTED:

Part of Body Affected identifies the part of the injured or ill employee's body directly affected by the injury or illness.

REFERENCE YEAR:

Reference Year of file is required. This item is the year for which an SDS data tape is prepared and must be the same for all records on a tape regardless of the opening or closing dates of processing. The Reference Year of the file will be greater than or equal to both the year of the case's occurrence and the year of the First Report's receipt.

SOURCE OF INJURY OR ILLNESS:

Source of Injury or Illness identifies the object, substance, or bodily motion which directly produced or inflicted the injury or illness.

STATE CODE:

State Code is required. This item is the numeric Federal Information Processing Standards (FIPS) State code for the State supplying the data tape. It must be the same for all records on a tape.

TIME OF ACCIDENT:

Time of Accident specifies the time of day that the injury occurred. Time of Accident may be provided for illness cases, but is used only for injury cases.

TYPE OF ACCIDENT OR EXPOSURE:

Type of Accident or Exposure identifies the event which directly resulted in the injury or illness.

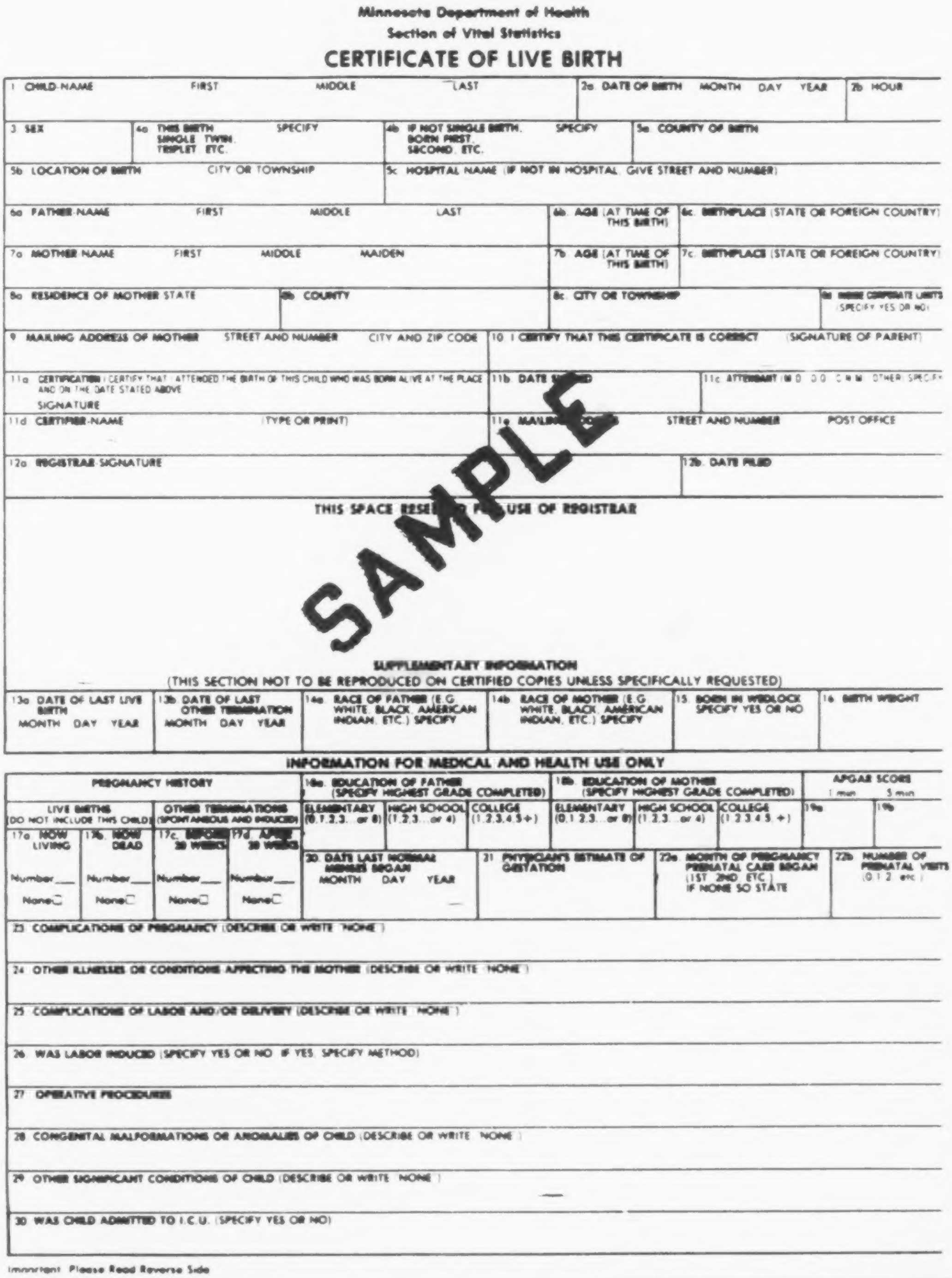
YEAR OF OCCURRENCE:

Year of Occurrence specifies the year of injury or the year of the diagnosis or onset of the illness.

APPENDIX B

DATA COLLECTION INSTRUMENTS

FIGURE 2



Minnesota Department of Health
Section of Vital Statistics

CERTIFICATE OF LIVE BIRTH

1 CHILD-NAME FIRST MIDDLE LAST
2a. DATE OF BIRTH MONTH DAY YEAR
2b HOUR
3 SEX
4a THIS BIRTH SINGLE, TWIN, TRIPLET, ETC. SPECIFY
4b IF NOT SINGLE BIRTH, BORN FIRST, SECOND, ETC. SPECIFY
5a COUNTY OF BIRTH
5b LOCATION OF BIRTH CITY OR TOWNSHIP
5c HOSPITAL NAME (IF NOT IN HOSPITAL, GIVE STREET AND NUMBER)
6a FATHER-NAME FIRST MIDDLE LAST
6b. AGE (AT TIME OF THIS BIRTH)
6c. BIRTHPLACE (STATE OR FOREIGN COUNTRY)
7a MOTHER-NAME FIRST MIDDLE MAIDEN
7b AGE (AT TIME OF THIS BIRTH)
7c. BIRTHPLACE (STATE OR FOREIGN COUNTRY)
8a RESIDENCE OF MOTHER STATE
8b COUNTY
8c. CITY OR TOWNSHIP
8d INSIDE CORPORATE LIMITS (SPECIFY YES OR NO)
9 MAILING ADDRESS OF MOTHER STREET AND NUMBER CITY AND ZIP CODE
10 I CERTIFY THAT THIS CERTIFICATE IS CORRECT (SIGNATURE OF PARENT)
11a CERTIFICATION I CERTIFY THAT I ATTENDED THE BIRTH OF THIS CHILD WHO WAS BORN ALIVE AT THE PLACE AND ON THE DATE STATED ABOVE
SIGNATURE
11b DATE SIGNED
11c ATTENDANT (M.D., D.O., C.N.M., OTHER) SPECIFY
11d CERTIFIER-NAME (TYPE OR PRINT)
11e MAILING ADDRESS STREET AND NUMBER POST OFFICE
12a REGISTRAR-SIGNATURE
12b. DATE FILED

THIS SPACE RESERVED FOR USE OF REGISTRAR

SAMPLE

SUPPLEMENTARY INFORMATION
(THIS SECTION NOT TO BE REPRODUCED ON CERTIFIED COPIES UNLESS SPECIFICALLY REQUESTED)

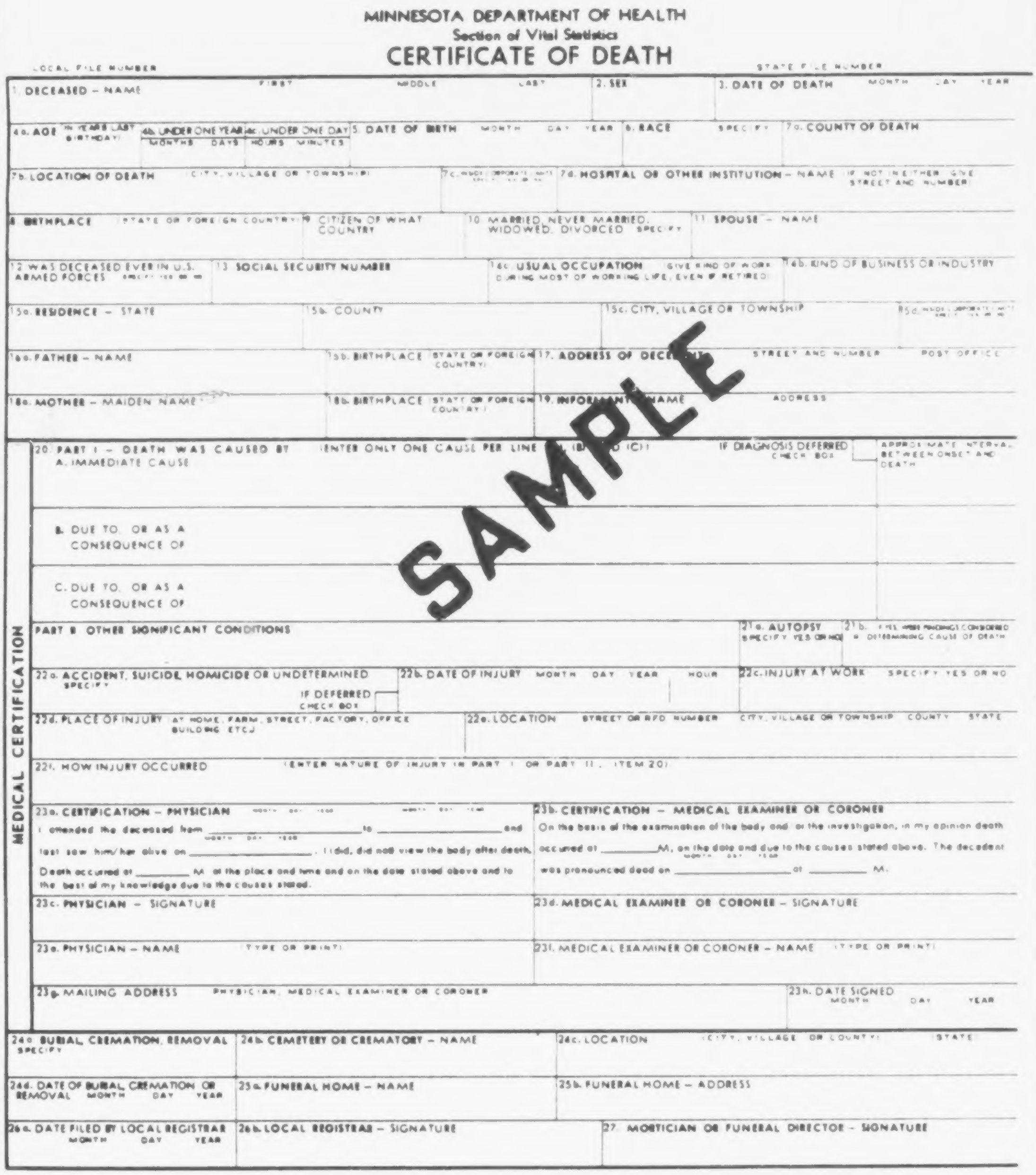
13a DATE OF LAST LIVE BIRTH MONTH DAY YEAR
13b DATE OF LAST OTHER TERMINATION MONTH DAY YEAR
14a RACE OF FATHER (E.G. WHITE, BLACK, AMERICAN INDIAN, ETC.) SPECIFY
14b RACE OF MOTHER (E.G. WHITE, BLACK, AMERICAN INDIAN, ETC.) SPECIFY
15. BORN IN WEDLOCK SPECIFY YES OR NO
16 BIRTH WEIGHT

INFORMATION FOR MEDICAL AND HEALTH USE ONLY

PREGNANCY HISTORY
LIVE BIRTHS (DO NOT INCLUDE THIS CHILD)
17a NOW LIVING Number___ None☐
17b. NOW DEAD Number___ None☐
OTHER TERMINATIONS (SPONTANEOUS AND INDUCED)
17c. BEFORE 20 WEEKS Number___ None☐
17d. AFTER 20 WEEKS Number___ None☐
18a. EDUCATION OF FATHER (SPECIFY HIGHEST GRADE COMPLETED)
ELEMENTARY (0,1,2,3,...or 8) HIGH SCHOOL (1,2,3,...or 4) COLLEGE (1,2,3,4,5+)
18b. EDUCATION OF MOTHER (SPECIFY HIGHEST GRADE COMPLETED)
ELEMENTARY (0,1,2,3,...or 8) HIGH SCHOOL (1,2,3,...or 4) COLLEGE (1,2,3,4,5,+)
APGAR SCORE
19a 1 min
19b 5 min
20 DATE LAST NORMAL MENSES BEGAN MONTH DAY YEAR
21 PHYSICIAN'S ESTIMATE OF GESTATION
22a MONTH OF PREGNANCY PRENATAL CARE BEGAN (1ST, 2ND, ETC.) IF NONE SO STATE
22b NUMBER OF PRENATAL VISITS (0,1,2, etc.)
23 COMPLICATIONS OF PREGNANCY (DESCRIBE OR WRITE "NONE")
24 OTHER ILLNESSES OR CONDITIONS AFFECTING THE MOTHER (DESCRIBE OR WRITE "NONE")
25 COMPLICATIONS OF LABOR AND/OR DELIVERY (DESCRIBE OR WRITE "NONE")
26 WAS LABOR INDUCED (SPECIFY YES OR NO. IF YES, SPECIFY METHOD)
27 OPERATIVE PROCEDURES
28 CONGENITAL MALFORMATIONS OR ANOMALIES OF CHILD (DESCRIBE OR WRITE "NONE")
29 OTHER SIGNIFICANT CONDITIONS OF CHILD (DESCRIBE OR WRITE "NONE")
30 WAS CHILD ADMITTED TO I.C.U. (SPECIFY YES OR NO)

Important: Please Read Reverse Side

FIGURE 3



MINNESOTA DEPARTMENT OF HEALTH
Section of Vital Statistics
CERTIFICATE OF DEATH

LOCAL FILE NUMBER
STATE FILE NUMBER

1. DECEASED – NAME FIRST MIDDLE LAST
2. SEX
3. DATE OF DEATH MONTH DAY YEAR
4a. AGE (IN YEARS LAST BIRTHDAY)
4b. UNDER ONE YEAR MONTHS DAYS
4c. UNDER ONE DAY HOURS MINUTES
5. DATE OF BIRTH MONTH DAY YEAR
6. RACE SPECIFY
7a. COUNTY OF DEATH
7b. LOCATION OF DEATH (CITY, VILLAGE OR TOWNSHIP)
7c.
7d. HOSPITAL OR OTHER INSTITUTION – NAME (IF NOT IN EITHER, GIVE STREET AND NUMBER)
8. BIRTHPLACE (STATE OR FOREIGN COUNTRY)
9. CITIZEN OF WHAT COUNTRY
10. MARRIED, NEVER MARRIED, WIDOWED, DIVORCED SPECIFY
11. SPOUSE – NAME
12. WAS DECEASED EVER IN U.S. ARMED FORCES
13. SOCIAL SECURITY NUMBER
14a. USUAL OCCUPATION (GIVE KIND OF WORK DURING MOST OF WORKING LIFE, EVEN IF RETIRED)
14b. KIND OF BUSINESS OR INDUSTRY
15a. RESIDENCE – STATE
15b. COUNTY
15c. CITY, VILLAGE OR TOWNSHIP
15d.
16a. FATHER – NAME
16b. BIRTHPLACE (STATE OR FOREIGN COUNTRY)
17. ADDRESS OF DECEDENT STREET AND NUMBER POST OFFICE
18a. MOTHER – MAIDEN NAME
18b. BIRTHPLACE (STATE OR FOREIGN COUNTRY)
19. INFORMANT – NAME ADDRESS

MEDICAL CERTIFICATION

20. PART I – DEATH WAS CAUSED BY (ENTER ONLY ONE CAUSE PER LINE (A), (B) AND (C))
A. IMMEDIATE CAUSE
IF DIAGNOSIS DEFERRED CHECK BOX ☐
APPROXIMATE INTERVAL BETWEEN ONSET AND DEATH
B. DUE TO, OR AS A CONSEQUENCE OF
C. DUE TO, OR AS A CONSEQUENCE OF
PART II OTHER SIGNIFICANT CONDITIONS
21a. AUTOPSY SPECIFY YES OR NO
21b. IF YES WERE FINDINGS CONSIDERED IN DETERMINING CAUSE OF DEATH
22a. ACCIDENT, SUICIDE, HOMICIDE OR UNDETERMINED SPECIFY
IF DEFERRED CHECK BOX ☐
22b. DATE OF INJURY MONTH DAY YEAR HOUR
22c. INJURY AT WORK SPECIFY YES OR NO
22d. PLACE OF INJURY AT HOME, FARM, STREET, FACTORY, OFFICE BUILDING, ETC.
22e. LOCATION STREET OR RFD NUMBER CITY, VILLAGE OR TOWNSHIP COUNTY STATE
22f. HOW INJURY OCCURRED (ENTER NATURE OF INJURY IN PART I OR PART II, ITEM 20)

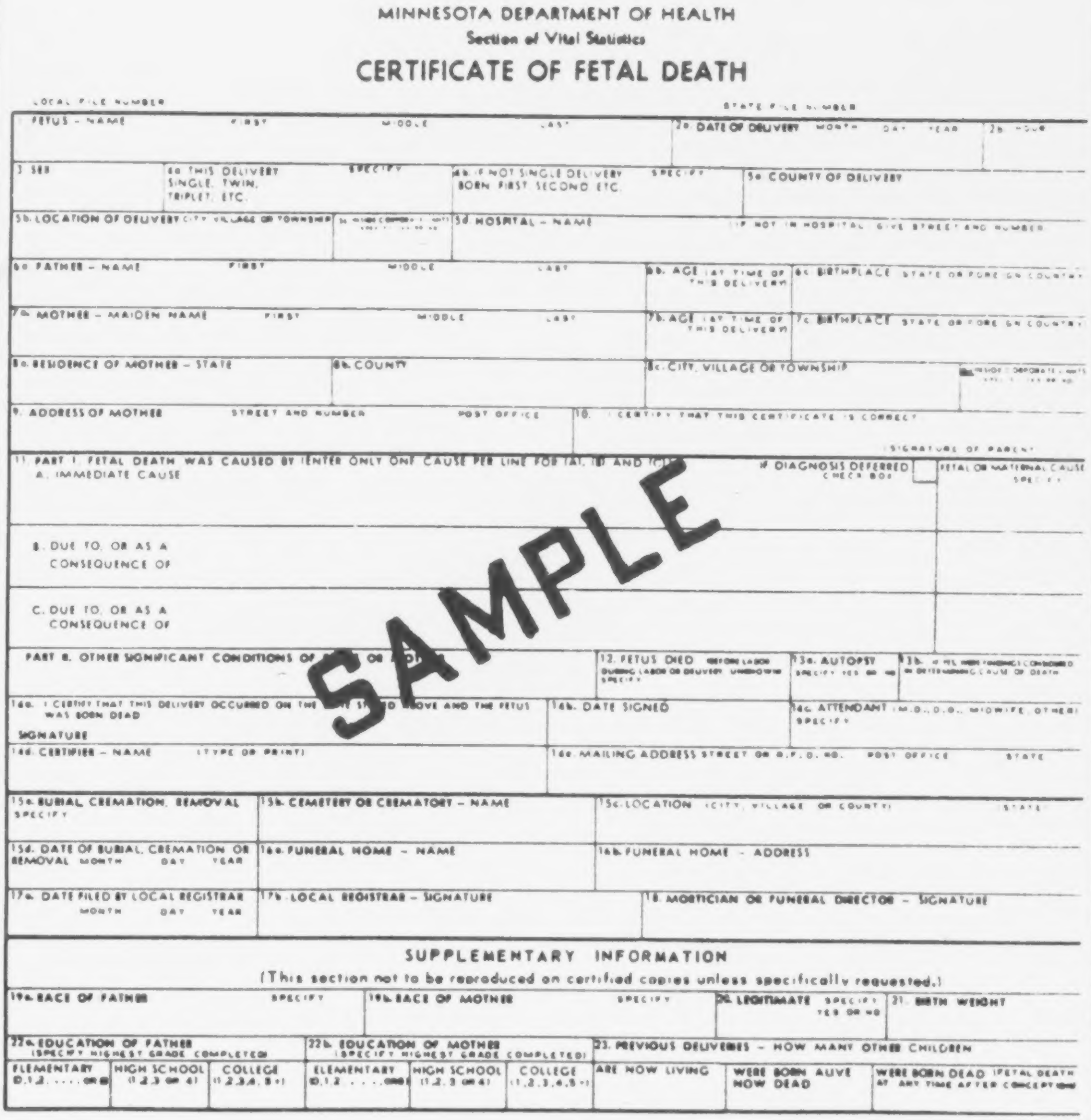
23a. CERTIFICATION – PHYSICIAN
I attended the deceased from ____________ to ____________ and last saw him/her alive on ____________. I did, did not view the body after death. Death occurred at ________ M. at the place and time and on the date stated above and to the best of my knowledge due to the causes stated.

23b. CERTIFICATION – MEDICAL EXAMINER OR CORONER
On the basis of the examination of the body and/or the investigation, in my opinion death occurred at ________ M. on the date and due to the causes stated above. The decedent was pronounced dead on ____________ at ________ M.

23c. PHYSICIAN – SIGNATURE
23d. MEDICAL EXAMINER OR CORONER – SIGNATURE
23e. PHYSICIAN – NAME (TYPE OR PRINT)
23f. MEDICAL EXAMINER OR CORONER – NAME (TYPE OR PRINT)
23g. MAILING ADDRESS PHYSICIAN, MEDICAL EXAMINER OR CORONER
23h. DATE SIGNED MONTH DAY YEAR
24a. BURIAL, CREMATION, REMOVAL SPECIFY
24b. CEMETERY OR CREMATORY – NAME
24c. LOCATION (CITY, VILLAGE OR COUNTY) STATE
24d. DATE OF BURIAL, CREMATION OR REMOVAL MONTH DAY YEAR
25a. FUNERAL HOME – NAME
25b. FUNERAL HOME – ADDRESS
26a. DATE FILED BY LOCAL REGISTRAR MONTH DAY YEAR
26b. LOCAL REGISTRAR – SIGNATURE
27. MORTICIAN OR FUNERAL DIRECTOR – SIGNATURE

SAMPLE

FIGURE 4



MINNESOTA DEPARTMENT OF HEALTH
Section of Vital Statistics

CERTIFICATE OF FETAL DEATH

LOCAL FILE NUMBER
STATE FILE NUMBER

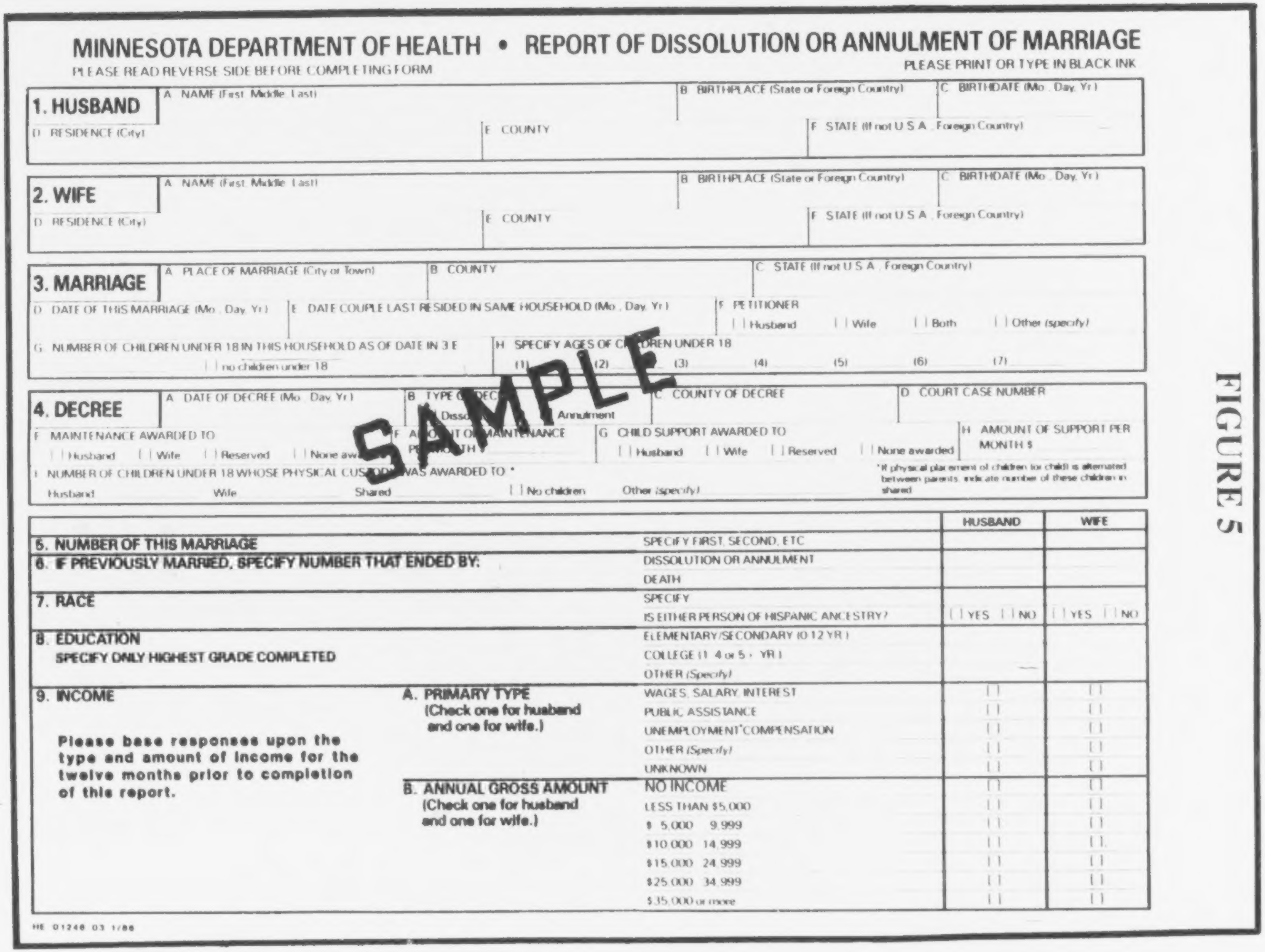
1. FETUS – NAME FIRST MIDDLE LAST
2a. DATE OF DELIVERY MONTH DAY YEAR
2b. HOUR
3. SEX
4a. THIS DELIVERY SINGLE, TWIN, TRIPLET, ETC. SPECIFY
4b. IF NOT SINGLE DELIVERY BORN FIRST, SECOND, ETC. SPECIFY
5a. COUNTY OF DELIVERY
5b. LOCATION OF DELIVERY CITY, VILLAGE OR TOWNSHIP
5c. [illegible]
5d. HOSPITAL – NAME (IF NOT IN HOSPITAL, GIVE STREET AND NUMBER)
6a. FATHER – NAME FIRST MIDDLE LAST
6b. AGE (AT TIME OF THIS DELIVERY)
6c. BIRTHPLACE STATE OR FOREIGN COUNTRY
7a. MOTHER – MAIDEN NAME FIRST MIDDLE LAST
7b. AGE (AT TIME OF THIS DELIVERY)
7c. BIRTHPLACE STATE OR FOREIGN COUNTRY
8a. RESIDENCE OF MOTHER – STATE
8b. COUNTY
8c. CITY, VILLAGE OR TOWNSHIP
8d. [illegible]
9. ADDRESS OF MOTHER STREET AND NUMBER POST OFFICE
10. I CERTIFY THAT THIS CERTIFICATE IS CORRECT
(SIGNATURE OF PARENT)
11. PART I. FETAL DEATH WAS CAUSED BY (ENTER ONLY ONE CAUSE PER LINE FOR (A), (B) AND (C))
A. IMMEDIATE CAUSE
IF DIAGNOSIS DEFERRED CHECK BOX ☐
FETAL OR MATERNAL CAUSE SPECIFY
B. DUE TO, OR AS A CONSEQUENCE OF
C. DUE TO, OR AS A CONSEQUENCE OF
PART II. OTHER SIGNIFICANT CONDITIONS OF [illegible] OR [illegible]
12. FETUS DIED BEFORE LABOR, DURING LABOR OR DELIVERY, UNKNOWN SPECIFY
13a. AUTOPSY SPECIFY YES OR NO
13b. IF YES, WERE FINDINGS CONSIDERED IN DETERMINING CAUSE OF DEATH
14a. I CERTIFY THAT THIS DELIVERY OCCURRED ON THE [illegible] STATED ABOVE AND THE FETUS WAS BORN DEAD
SIGNATURE
14b. DATE SIGNED
14c. ATTENDANT (M.D., D.O., MIDWIFE, OTHER) SPECIFY
14d. CERTIFIER – NAME (TYPE OR PRINT)
14e. MAILING ADDRESS STREET OR R.F.D. NO. POST OFFICE STATE
15a. BURIAL, CREMATION, REMOVAL SPECIFY
15b. CEMETERY OR CREMATORY – NAME
15c. LOCATION (CITY, VILLAGE OR COUNTY) (STATE)
15d. DATE OF BURIAL, CREMATION OR REMOVAL MONTH DAY YEAR
16a. FUNERAL HOME – NAME
16b. FUNERAL HOME – ADDRESS
17a. DATE FILED BY LOCAL REGISTRAR MONTH DAY YEAR
17b. LOCAL REGISTRAR – SIGNATURE
18. MORTICIAN OR FUNERAL DIRECTOR – SIGNATURE

SUPPLEMENTARY INFORMATION

(This section not to be reproduced on certified copies unless specifically requested.)

19a. RACE OF FATHER SPECIFY
19b. RACE OF MOTHER SPECIFY
20. LEGITIMATE SPECIFY YES OR NO
21. BIRTH WEIGHT
22a. EDUCATION OF FATHER (SPECIFY HIGHEST GRADE COMPLETED)
ELEMENTARY (0,1,2, ... OR 8) HIGH SCHOOL (1,2,3 OR 4) COLLEGE (1,2,3,4, 5+)
22b. EDUCATION OF MOTHER (SPECIFY HIGHEST GRADE COMPLETED)
ELEMENTARY (0,1,2, ... OR 8) HIGH SCHOOL (1,2,3 OR 4) COLLEGE (1,2,3,4,5+)
23. PREVIOUS DELIVERIES – HOW MANY OTHER CHILDREN
ARE NOW LIVING
WERE BORN ALIVE NOW DEAD
WERE BORN DEAD (FETAL DEATH AT ANY TIME AFTER CONCEPTION)

SAMPLE



MINNESOTA DEPARTMENT OF HEALTH • REPORT OF DISSOLUTION OR ANNULMENT OF MARRIAGE

PLEASE READ REVERSE SIDE BEFORE COMPLETING FORM

PLEASE PRINT OR TYPE IN BLACK INK

1. HUSBAND
A NAME (First, Middle, Last)
B BIRTHPLACE (State or Foreign Country)
C BIRTHDATE (Mo., Day, Yr.)
D RESIDENCE (City)
E COUNTY
F STATE (If not U.S.A., Foreign Country)

2. WIFE
A NAME (First, Middle, Last)
B BIRTHPLACE (State or Foreign Country)
C BIRTHDATE (Mo., Day, Yr.)
D RESIDENCE (City)
E COUNTY
F STATE (If not U.S.A., Foreign Country)

3. MARRIAGE
A PLACE OF MARRIAGE (City or Town)
B COUNTY
C STATE (If not U.S.A., Foreign Country)
D DATE OF THIS MARRIAGE (Mo., Day, Yr.)
E DATE COUPLE LAST RESIDED IN SAME HOUSEHOLD (Mo., Day, Yr.)
F PETITIONER ☐ Husband ☐ Wife ☐ Both ☐ Other *(specify)*
G NUMBER OF CHILDREN UNDER 18 IN THIS HOUSEHOLD AS OF DATE IN 3 E ☐ no children under 18
H SPECIFY AGES OF CHILDREN UNDER 18 (1) (2) (3) (4) (5) (6) (7)

4. DECREE
A DATE OF DECREE (Mo., Day, Yr.)
B TYPE OF DECREE ☐ Dissolution ☐ Annulment
C COUNTY OF DECREE
D COURT CASE NUMBER
E MAINTENANCE AWARDED TO ☐ Husband ☐ Wife ☐ Reserved ☐ None awarded
F AMOUNT OF MAINTENANCE PER MONTH $
G CHILD SUPPORT AWARDED TO ☐ Husband ☐ Wife ☐ Reserved ☐ None awarded
H AMOUNT OF SUPPORT PER MONTH $
I NUMBER OF CHILDREN UNDER 18 WHOSE PHYSICAL CUSTODY WAS AWARDED TO *
Husband Wife Shared ☐ No children Other *(specify)*

*If physical placement of children (or child) is alternated between parents, indicate number of these children in shared

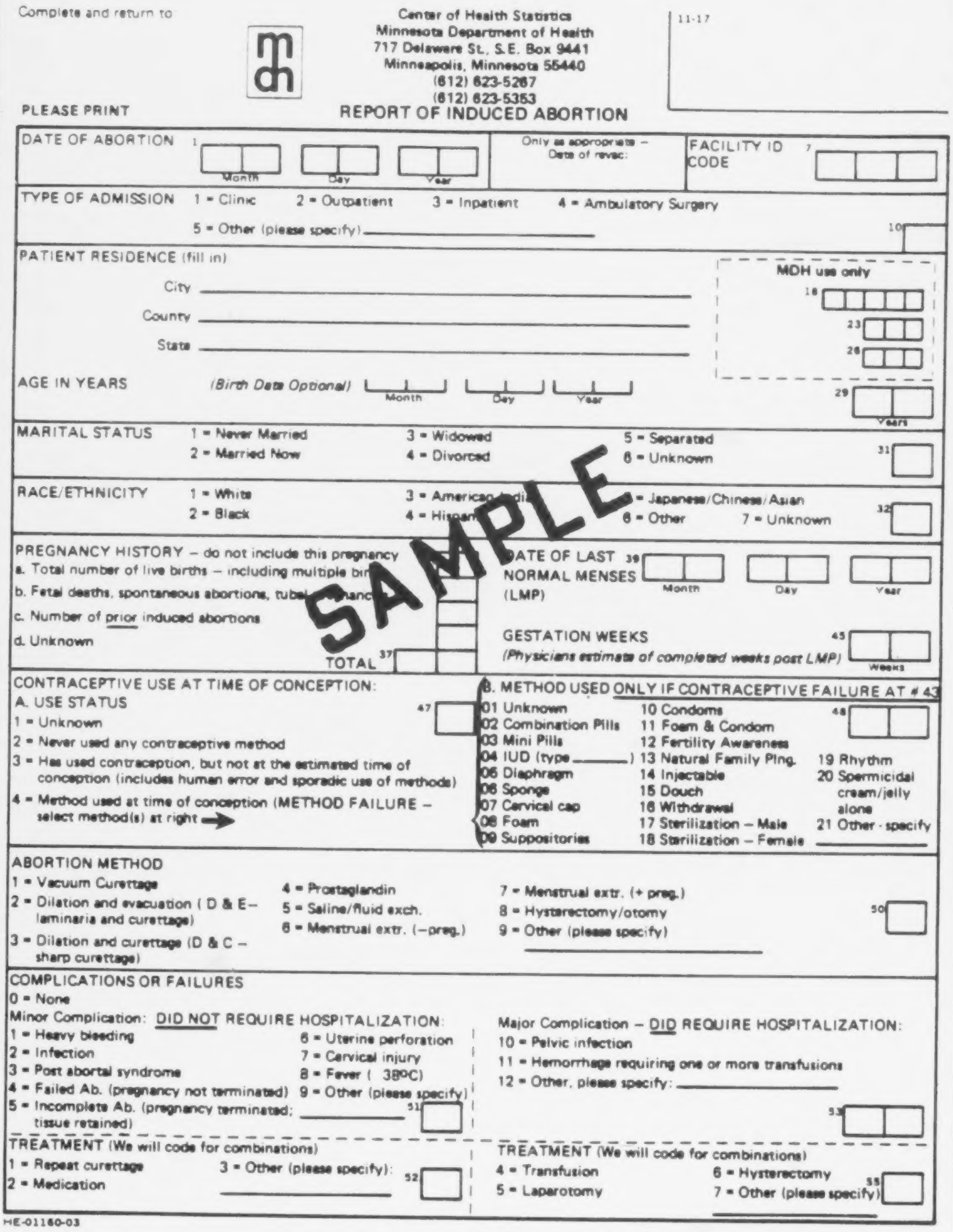
SAMPLE

		HUSBAND	WIFE
5. NUMBER OF THIS MARRIAGE	SPECIFY FIRST, SECOND, ETC.		
6. IF PREVIOUSLY MARRIED, SPECIFY NUMBER THAT ENDED BY:	DISSOLUTION OR ANNULMENT		
	DEATH		
7. RACE	SPECIFY		
	IS EITHER PERSON OF HISPANIC ANCESTRY?	☐ YES ☐ NO	☐ YES ☐ NO
8. EDUCATION **SPECIFY ONLY HIGHEST GRADE COMPLETED**	ELEMENTARY/SECONDARY (0-12 YR.)		
	COLLEGE (1-4 or 5+ YR.)		
	OTHER *(Specify)*		
9. INCOME — **A. PRIMARY TYPE (Check one for husband and one for wife.)**	WAGES, SALARY, INTEREST	☐	☐
Please base responses upon the type and amount of income for the twelve months prior to completion of this report.	PUBLIC ASSISTANCE	☐	☐
	UNEMPLOYMENT COMPENSATION	☐	☐
	OTHER *(Specify)*	☐	☐
	UNKNOWN	☐	☐
B. ANNUAL GROSS AMOUNT (Check one for husband and one for wife.)	NO INCOME	☐	☐
	LESS THAN $5,000	☐	☐
	$ 5,000 - 9,999	☐	☐
	$10,000 - 14,999	☐	☐
	$15,000 - 24,999	☐	☐
	$25,000 - 34,999	☐	☐
	$35,000 or more	☐	☐

HE 01246 03 1/86

FIGURE 5

FIGURE 6



Complete and return to

Center of Health Statistics
Minnesota Department of Health
717 Delaware St., S.E. Box 9441
Minneapolis, Minnesota 55440
(612) 623-5267
(612) 623-5353

11-17

PLEASE PRINT

REPORT OF INDUCED ABORTION

DATE OF ABORTION 1 ☐☐ Month ☐☐ Day ☐☐ Year

Only as appropriate – Date of revac:

FACILITY ID CODE 7 ☐☐☐

TYPE OF ADMISSION 1 = Clinic 2 = Outpatient 3 = Inpatient 4 = Ambulatory Surgery
5 = Other (please specify) ____________ 10 ☐

PATIENT RESIDENCE (fill in)
City ____________
County ____________
State ____________

MDH use only
18 ☐☐☐☐☐
23 ☐☐☐
26 ☐☐☐

AGE IN YEARS (Birth Date Optional) Month Day Year 29 ☐☐ Years

MARITAL STATUS
1 = Never Married
2 = Married Now
3 = Widowed
4 = Divorced
5 = Separated
6 = Unknown
31 ☐

RACE/ETHNICITY
1 = White
2 = Black
3 = American Indi
4 = Hispan
= Japanese/Chinese/Asian
6 = Other
7 = Unknown
32 ☐

PREGNANCY HISTORY – do not include this pregnancy
a. Total number of live births – including multiple bir ☐
b. Fetal deaths, spontaneous abortions, tub[illegible]anc ☐
c. Number of prior induced abortions ☐
d. Unknown ☐
TOTAL 37 ☐☐

DATE OF LAST NORMAL MENSES (LMP) 39 ☐☐ Month ☐☐ Day ☐☐ Year

GESTATION WEEKS *(Physicians estimate of completed weeks post LMP)* 45 ☐☐ Weeks

CONTRACEPTIVE USE AT TIME OF CONCEPTION:
A. USE STATUS 47 ☐
1 = Unknown
2 = Never used any contraceptive method
3 = Has used contraception, but not at the estimated time of conception (includes human error and sporadic use of methods)
4 = Method used at time of conception (METHOD FAILURE – select method(s) at right →

B. METHOD USED ONLY IF CONTRACEPTIVE FAILURE AT # 43 48 ☐☐
01 Unknown
02 Combination Pills
03 Mini Pills
04 IUD (type ______)
05 Diaphragm
06 Sponge
07 Cervical cap
08 Foam
09 Suppositories
10 Condoms
11 Foam & Condom
12 Fertility Awareness
13 Natural Family Plng.
14 Injectable
15 Douch
16 Withdrawal
17 Sterilization – Male
18 Sterilization – Female
19 Rhythm
20 Spermicidal cream/jelly alone
21 Other - specify ______

ABORTION METHOD
1 = Vacuum Curettage
2 = Dilation and evacuation (D & E– laminaria and curettage)
3 = Dilation and curettage (D & C – sharp curettage)
4 = Prostaglandin
5 = Saline/fluid exch.
6 = Menstrual extr. (–preg.)
7 = Menstrual extr. (+ preg.)
8 = Hysterectomy/otomy
9 = Other (please specify) ____________
50 ☐

COMPLICATIONS OR FAILURES
0 = None

Minor Complication: DID NOT REQUIRE HOSPITALIZATION:
1 = Heavy bleeding
2 = Infection
3 = Post abortal syndrome
4 = Failed Ab. (pregnancy not terminated)
5 = Incomplete Ab. (pregnancy terminated; tissue retained)
6 = Uterine perforation
7 = Cervical injury
8 = Fever (38°C)
9 = Other (please specify) ____________
51 ☐

Major Complication – DID REQUIRE HOSPITALIZATION:
10 = Pelvic infection
11 = Hemorrhage requiring one or more transfusions
12 = Other, please specify: ____________
53 ☐☐

TREATMENT (We will code for combinations)
1 = Repeat curettage
2 = Medication
3 = Other (please specify): ____________
52 ☐

TREATMENT (We will code for combinations)
4 = Transfusion
5 = Laparotomy
6 = Hysterectomy
7 = Other (please specify) ____________
55 ☐

HE-01160-03

SAMPLE

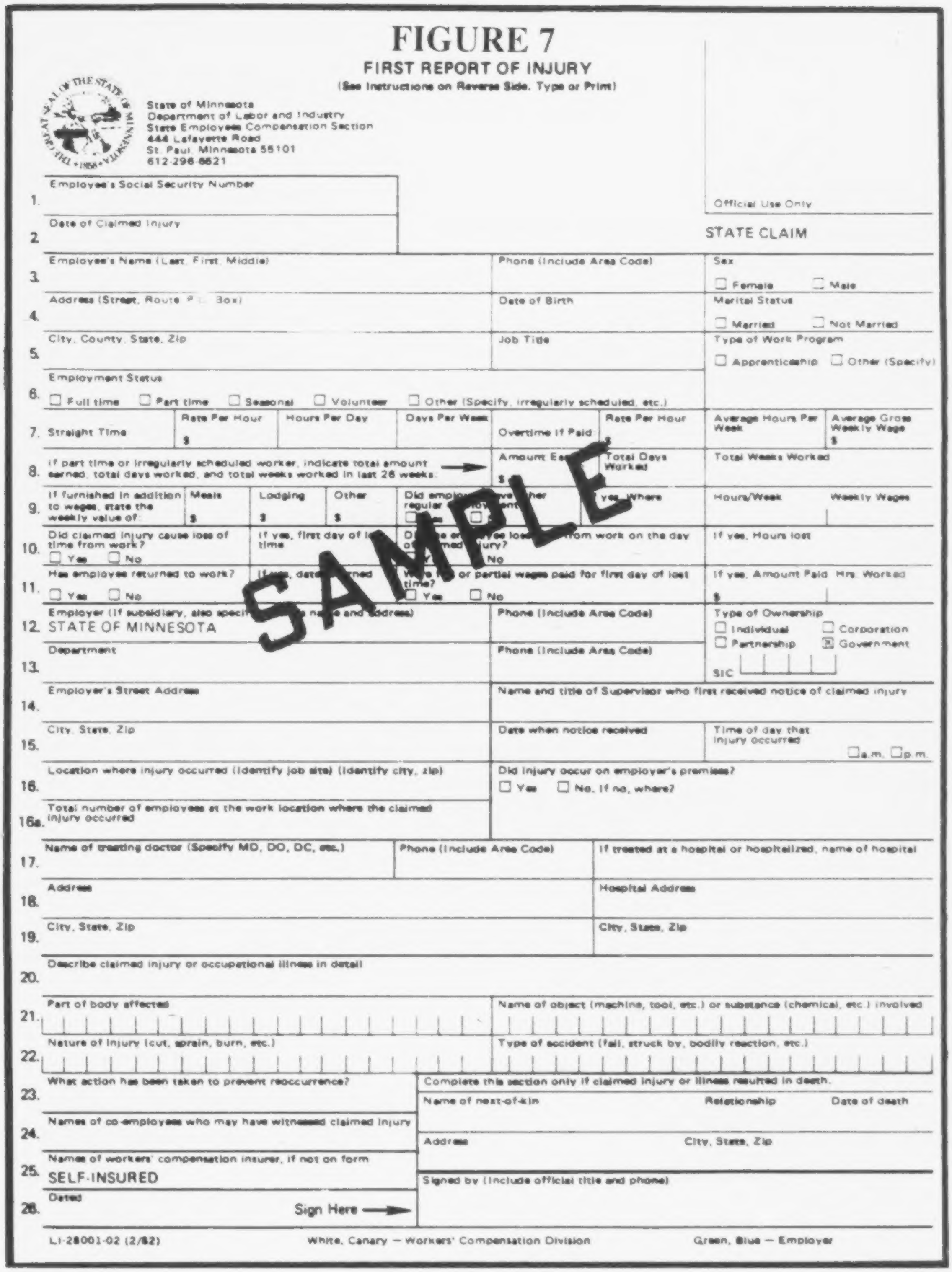


FIGURE 7

FIRST REPORT OF INJURY

(See Instructions on Reverse Side. Type or Print)

State of Minnesota
Department of Labor and Industry
State Employees Compensation Section
444 Lafayette Road
St. Paul, Minnesota 55101
612-296-6621

Official Use Only

STATE CLAIM

1. Employee's Social Security Number

2. Date of Claimed Injury

3. Employee's Name (Last, First, Middle) | Phone (Include Area Code) | Sex ☐ Female ☐ Male

4. Address (Street, Route P... Box) | Date of Birth | Marital Status ☐ Married ☐ Not Married

5. City, County, State, Zip | Job Title | Type of Work Program ☐ Apprenticeship ☐ Other (Specify)

6. Employment Status ☐ Full time ☐ Part time ☐ Seasonal ☐ Volunteer ☐ Other (Specify, irregularly scheduled, etc.)

7. Straight Time | Rate Per Hour $ | Hours Per Day | Days Per Week | Overtime If Paid | Rate Per Hour $ | Average Hours Per Week | Average Gross Weekly Wage $

8. If part time or irregularly scheduled worker, indicate total amount earned, total days worked, and total weeks worked in last 26 weeks: → | Amount Ea... $ | Total Days Worked | Total Weeks Worked

9. If furnished in addition to wages, state the weekly value of: | Meals $ | Lodging $ | Other $ | Did emplo... ...ve other regular ...ployment ☐ ... ☐ ... | ...yes, Where | Hours/Week | Weekly Wages

10. Did claimed injury cause loss of time from work? ☐ Yes ☐ No | If yes, first day of l... time | D... ...e ...ee los... from work on the day of ...med ...jury? ☐ ... ☐ No | If yes, Hours lost

11. Has employee returned to work? ☐ Yes ☐ No | If ..., date ...rned | We... ... or partial wages paid for first day of lost time? ☐ Yes ☐ No | If yes, Amount Paid $ | Hrs. Worked

12. Employer (If subsidiary, also speci... ...e na...e and address) STATE OF MINNESOTA | Phone (Include Area Code) | Type of Ownership ☐ Individual ☐ Corporation ☐ Partnership ☒ Government

13. Department | Phone (Include Area Code) | SIC

14. Employer's Street Address | Name and title of Supervisor who first received notice of claimed injury

15. City, State, Zip | Date when notice received | Time of day that injury occurred ☐a.m. ☐p.m.

16. Location where injury occurred (identify job site) (identify city, zip) | Did injury occur on employer's premises? ☐ Yes ☐ No, If no, where?

16a. Total number of employees at the work location where the claimed injury occurred

17. Name of treating doctor (Specify MD, DO, DC, etc.) | Phone (Include Area Code) | If treated at a hospital or hospitalized, name of hospital

18. Address | Hospital Address

19. City, State, Zip | City, State, Zip

20. Describe claimed injury or occupational illness in detail

21. Part of body affected | Name of object (machine, tool, etc.) or substance (chemical, etc.) involved

22. Nature of injury (cut, sprain, burn, etc.) | Type of accident (fall, struck by, bodily reaction, etc.)

23. What action has been taken to prevent reoccurrence?

24. Names of co-employees who may have witnessed claimed injury

25. Names of workers' compensation insurer, if not on form SELF-INSURED

26. Dated | Sign Here →

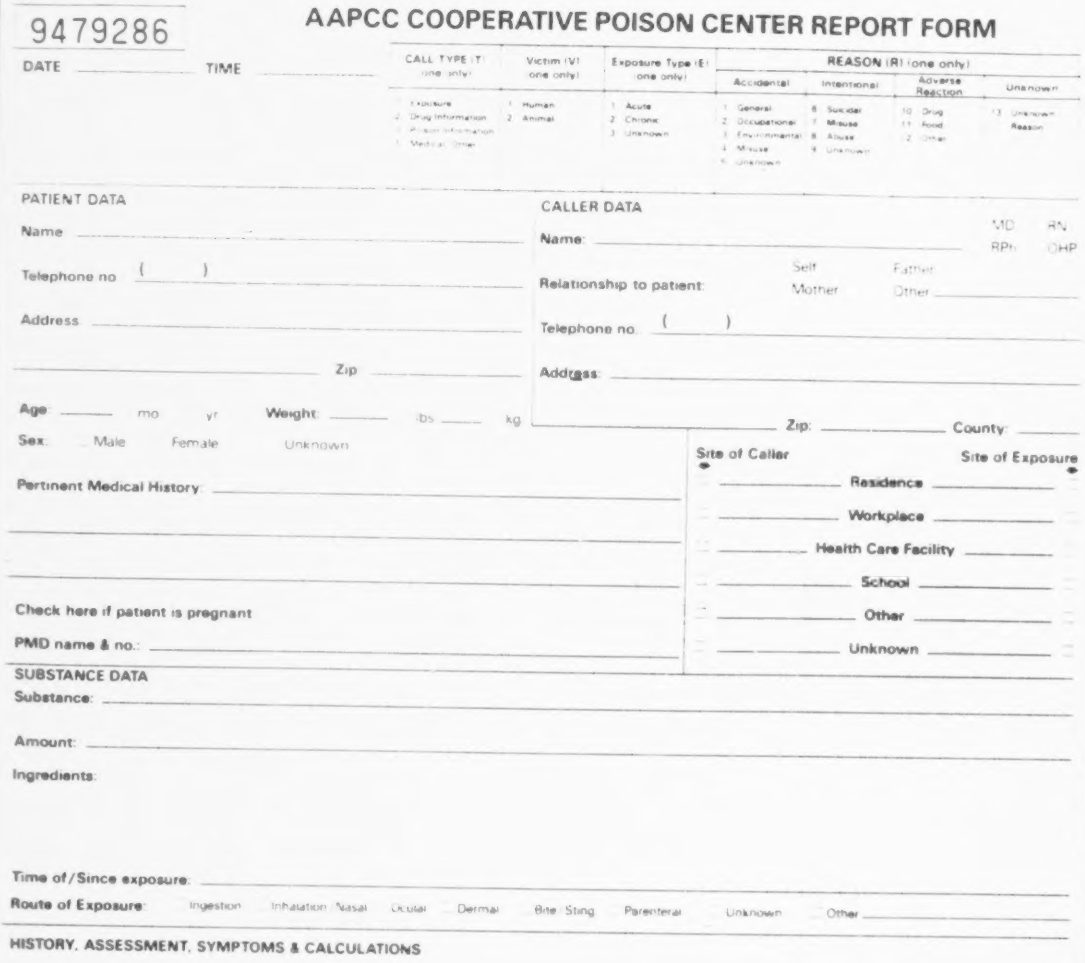
Complete this section only if claimed injury or illness resulted in death.
Name of next-of-kin | Relationship | Date of death
Address | City, State, Zip

Signed by (Include official title and phone)

LI-28001-02 (2/82) | White, Canary — Workers' Compensation Division | Green, Blue — Employer

SAMPLE

FIGURE 8



9479286

AAPCC COOPERATIVE POISON CENTER REPORT FORM

DATE ____________ TIME ____________

CALL TYPE (T) (one only)	Victim (V) (one only)	Exposure Type (E) (one only)	REASON (R) (one only)			
			Accidental	Intentional	Adverse Reaction	Unknown
1 Exposure 2 Drug Information 3 Poison Information 4 Medical Other	1 Human 2 Animal	1 Acute 2 Chronic 3 Unknown	1 General 2 Occupational 3 Environmental 4 Misuse 5 Unknown	6 Suicidal 7 Misuse 8 Abuse 9 Unknown	10 Drug 11 Food 12 Other	13 Unknown Reason

PATIENT DATA

Name ____________

Telephone no ( ) ____________

Address ____________

____________ Zip ____________

Age: ______ mo yr Weight: ______ lbs ______ kg

Sex: Male Female Unknown

Pertinent Medical History: ____________

Check here if patient is pregnant

PMD name & no.: ____________

CALLER DATA

Name: ____________ MD RN RPh OHP

Relationship to patient: Self Father Mother Other ____________

Telephone no. ( ) ____________

Address: ____________

____________ Zip: ____________ County: ____________

Site of Caller		Site of Exposure
☐ ____________	Residence	____________ ☐
☐ ____________	Workplace	____________ ☐
☐ ____________	Health Care Facility	____________ ☐
☐ ____________	School	____________ ☐
☐ ____________	Other	____________ ☐
☐ ____________	Unknown	____________ ☐

SUBSTANCE DATA

Substance: ____________

Amount: ____________

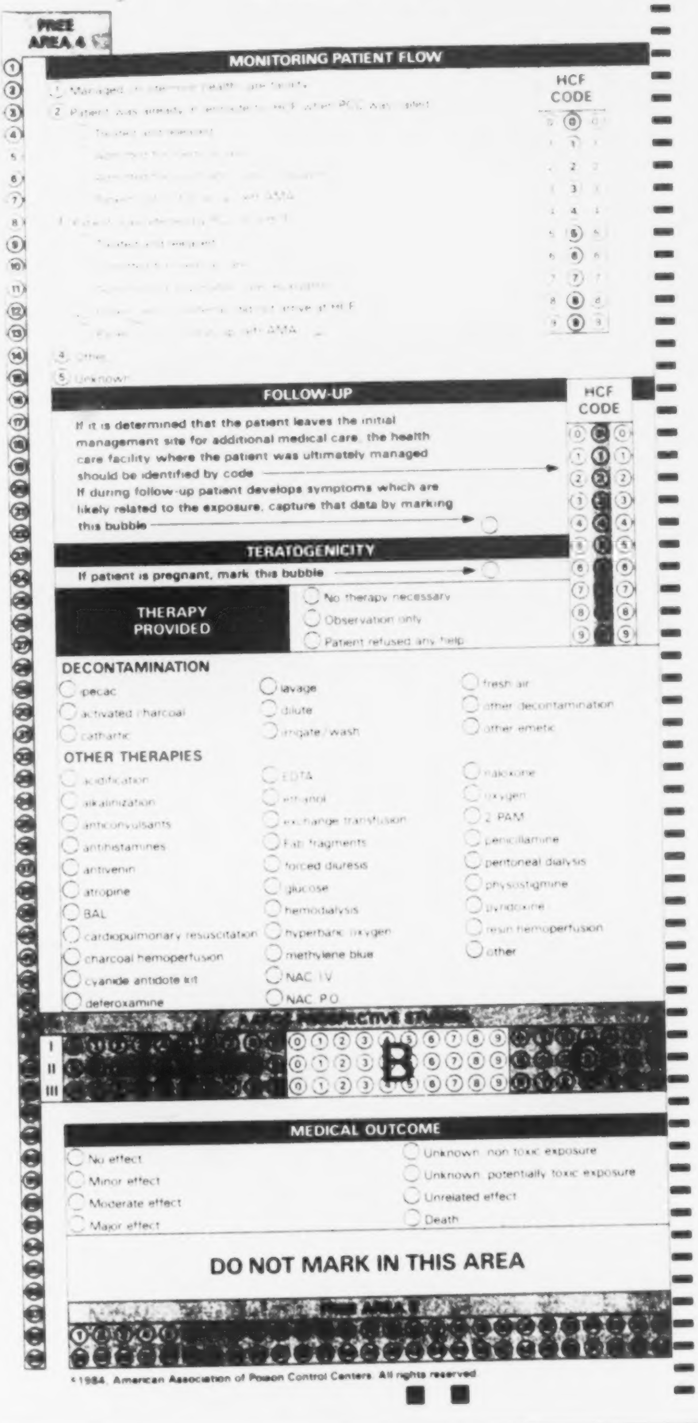
Ingredients:

Time of/Since exposure: ____________

Route of Exposure: Ingestion Inhalation/Nasal Ocular Dermal Bite/Sting Parenteral Unknown Other ____________

HISTORY, ASSESSMENT, SYMPTOMS & CALCULATIONS

FIGURE 8



FREE AREA 4

MONITORING PATIENT FLOW

○ 1 Managed [illegible] health care facility
○ 2 Patient was already [illegible] HCF when PCC was called
  ○ Treated and released
  ○ Admitted for [illegible]
  ○ Admitted for [illegible]
  ○ Patient [illegible] left AMA
○ 3 Patient [illegible] by PCC [illegible]
  ○ Treated and released
  ○ [illegible]
  ○ [illegible]
  ○ [illegible] did not arrive at HCF
  ○ Patient [illegible] left AMA
○ 4 Other
○ 5 Unknown

HCF CODE

FOLLOW-UP

If it is determined that the patient leaves the initial management site for additional medical care, the health care facility where the patient was ultimately managed should be identified by code →

If during follow-up patient develops symptoms which are likely related to the exposure, capture that data by marking this bubble → ○

HCF CODE

TERATOGENICITY

If patient is pregnant, mark this bubble → ○

THERAPY PROVIDED

○ No therapy necessary
○ Observation only
○ Patient refused any help

DECONTAMINATION

○ ipecac
○ activated charcoal
○ cathartic
○ lavage
○ dilute
○ irrigate/wash
○ fresh air
○ other decontamination
○ other emetic

OTHER THERAPIES

○ acidification
○ alkalinization
○ anticonvulsants
○ antihistamines
○ antivenin
○ atropine
○ BAL
○ cardiopulmonary resuscitation
○ charcoal hemoperfusion
○ cyanide antidote kit
○ deferoxamine
○ EDTA
○ ethanol
○ exchange transfusion
○ Fab fragments
○ forced diuresis
○ glucose
○ hemodialysis
○ hyperbaric oxygen
○ methylene blue
○ NAC IV
○ NAC PO
○ naloxone
○ oxygen
○ 2 PAM
○ penicillamine
○ peritoneal dialysis
○ physostigmine
○ pyridoxine
○ resin hemoperfusion
○ other

[illegible] PROSPECTIVE STUDIES

I
II
III

B

MEDICAL OUTCOME

○ No effect
○ Minor effect
○ Moderate effect
○ Major effect
○ Unknown, non toxic exposure
○ Unknown, potentially toxic exposure
○ Unrelated effect
○ Death

DO NOT MARK IN THIS AREA

FREE AREA 1

©1984, American Association of Poison Control Centers. All rights reserved

FIGURE 8

Treatment
Facility ______________________________

______________________________ Code ____________

MANAGEMENT PLAN, FOLLOW-UP NOTES AND OUTCOME (Time & date each entry)

DATE TIME

CONSULTANTS/RESOURCES USED

Medical director ____________

Other consultant ____________

Texts ____________

Other ____________

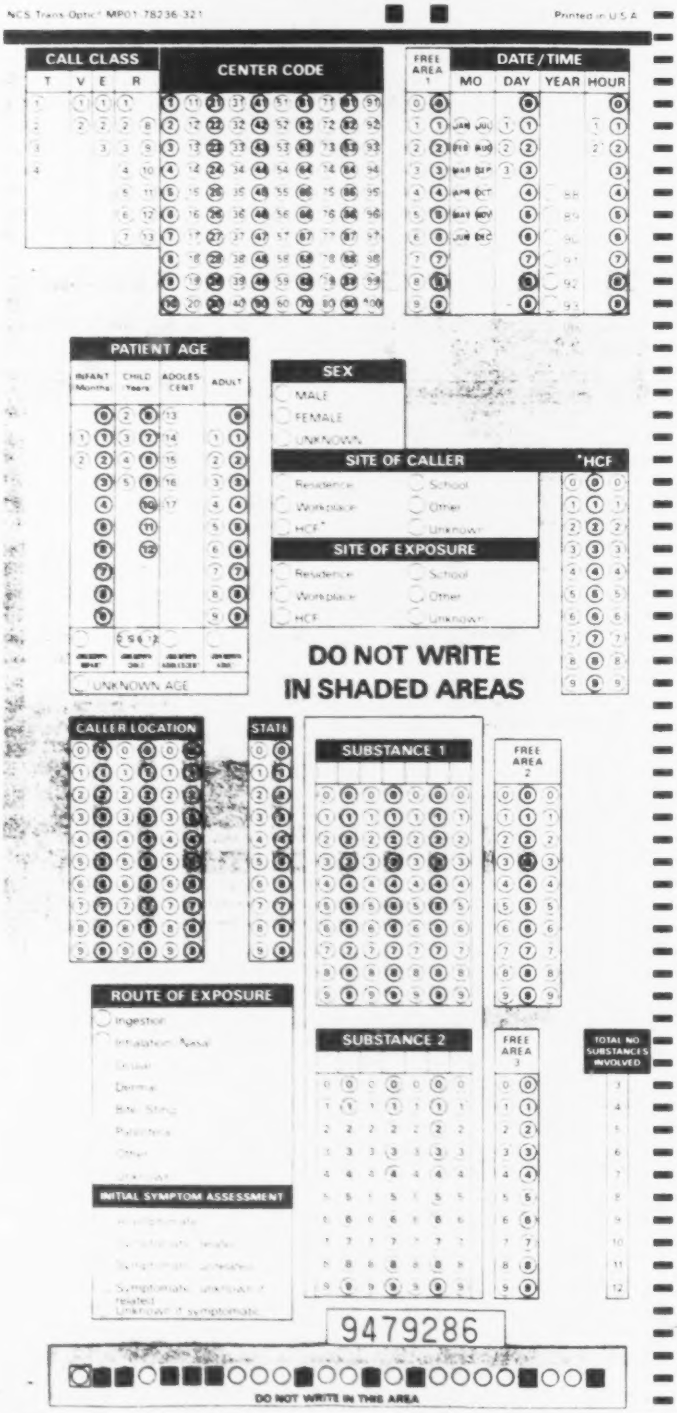
Poisindex*

FORM
INITIATED BY ____________

FORM
COMPLETED BY ____________

FORM
REVIEWED BY ____________

FIGURE 8



NCS Trans-Optic® MP01-78236-321

Printed in U.S.A.

CALL CLASS

T V E R

CENTER CODE

FREE AREA 1

DATE / TIME

MO DAY YEAR HOUR

JAN JUL
FEB AUG
MAR SEP
APR OCT
MAY NOV
JUN DEC

PATIENT AGE

INFANT Months | CHILD Years | ADOLESCENT | ADULT

○ UNKNOWN AGE

SEX

○ MALE
○ FEMALE
○ UNKNOWN

SITE OF CALLER

○ Residence ○ School
○ Workplace ○ Other
○ HCF* ○ Unknown

***HCF**

SITE OF EXPOSURE

○ Residence ○ School
○ Workplace ○ Other
○ HCF ○ Unknown

DO NOT WRITE IN SHADED AREAS

CALLER LOCATION

STATE

SUBSTANCE 1

FREE AREA 2

ROUTE OF EXPOSURE

○ Ingestion
○ Inhalation/Nasal
○ Ocular
○ Dermal
○ Bite/Sting
○ Parenteral
○ Other
○ Unknown

INITIAL SYMPTOM ASSESSMENT

○ Asymptomatic
○ Symptomatic related
○ Symptomatic unrelated
○ Symptomatic unknown if related
○ Unknown if symptomatic

SUBSTANCE 2

FREE AREA 3

TOTAL NO. SUBSTANCES INVOLVED

3 4 5 6 7 8 9 10 11 12

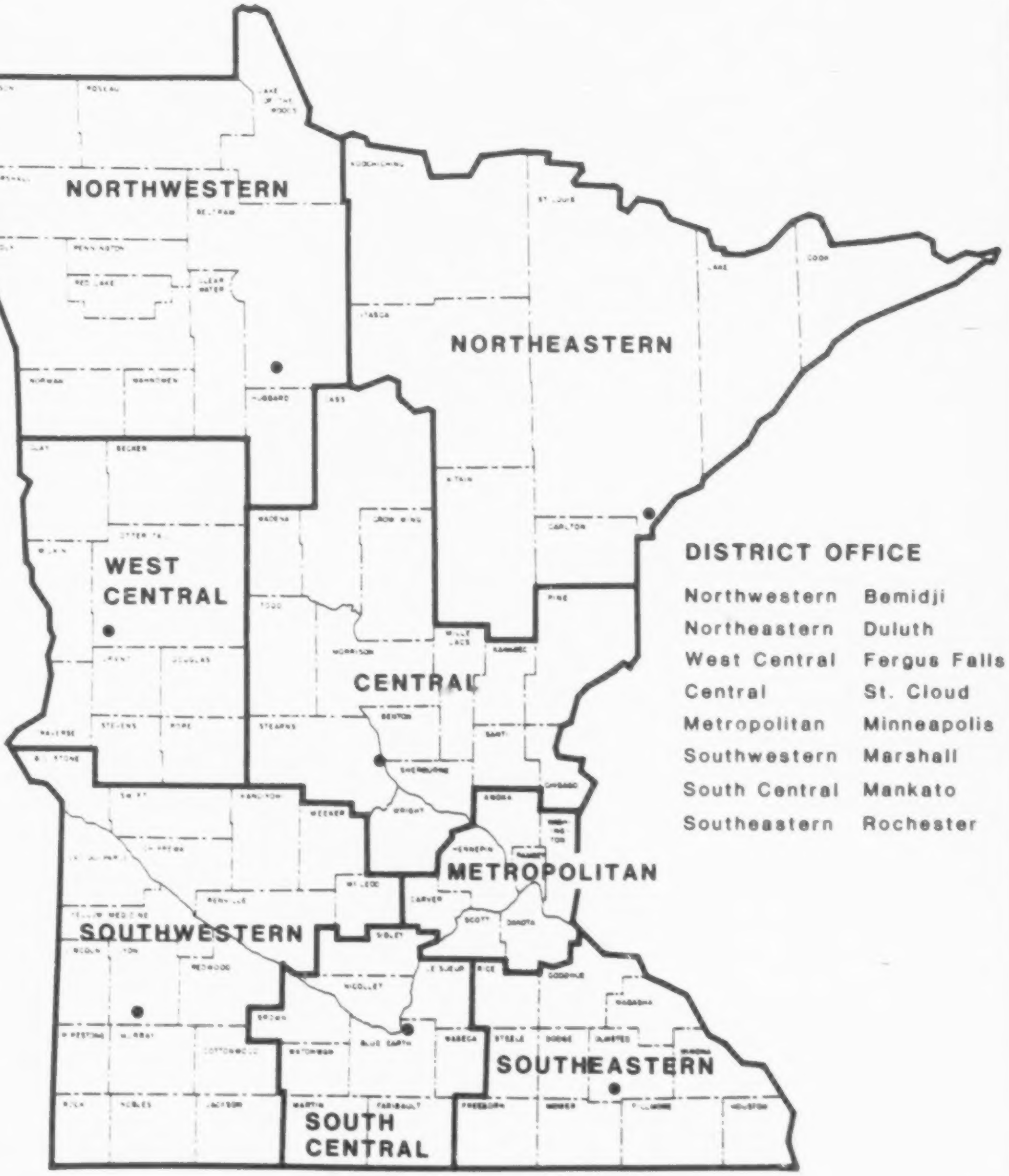
9479286

DO NOT WRITE IN THIS AREA

APPENDIX C

MAP OF HEALTH DISTRICTS AND OFFICES

FIGURE 9
Health Districts and Offices


NORTHWESTERN
NORTHEASTERN
WEST CENTRAL
CENTRAL
METROPOLITAN
SOUTHWESTERN
SOUTHEASTERN
SOUTH CENTRAL

DISTRICT OFFICE

Northwestern	Bemidji
Northeastern	Duluth
West Central	Fergus Falls
Central	St. Cloud
Metropolitan	Minneapolis
Southwestern	Marshall
South Central	Mankato
Southeastern	Rochester